City of East Palo Alto

KIPP Esperanza High School
Supplemental Mitigated Negative Declaration

Appendices

SCH#2010062078

Prepared for
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Department of Community and Economic Department
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Appendix A

Air Quality and Greenhouse Gas Emissions Data

MEMORANDUM

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Date: December 14, 2020

Subject: KIPP Esperanza High School Project – Air Quality and Greenhouse Gas Emissions Analysis

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1.0 PURPOSE

The purpose of this memorandum is to identify the air quality and greenhouse gas (GHG) emissions associated with construction and operations of the proposed KIPP Esperanza High School Project (project), located in the City of East Palo Alto, California. This analysis has been undertaken to analyze whether the proposed project would result in any significant environmental impacts as compared to the conclusions discussed in the certified Mitigated Negative Declaration (MND) for the East Palo Alto Phoenix Academy adopted in August, 2010 (Approved Project).

2.0 PROPOSED PROJECT DESCRIPTION

The proposed project is in the City of East Palo Alto (City) in southeastern portion of San Mateo County, California. The project site is on two parcels (APN 063-341-130 and 063-341-150), located at 1039 and 1063 Garden Street, approximately mid-block between Clarke Avenue and Pulgas Avenue. See **Figure 1, Project Location.**

The project site is now developed with the previously approved school (Phoenix Academy), permitted for 411 students grades 6-12. The overall project site is flat and previously graded. The project site is surrounded on three sides by existing single-family residential development. Immediately north of the school site are two vacant parcels accessed from Runnymede Street. Adjacent to the site is a separately owned parcel currently used as the Canaan Church Prayer Center.

The project proposes to operate a public charter high school (KIPP Esperanza High School) ultimately serving up to 650 students in grades 9-12. The school is planning to open in August 2020 with 180 students and will expand enrollment to 650 over a four-year period. There would be 16 full time employees when the school opens and 44 at full enrollment. Four additional classrooms (approximately 4,000 square feet) are proposed to be added during this timeline to accommodate the additional student population (Phase 2). For analysis purposes, this document assumes full buildout of Phase 2 classrooms as proposed. Basic parking, access, and circulation through the campus would remain the same as it functions today.

Construction of the proposed project is anticipated to take approximately three months. Construction of the new Phase 2 classroom facilities would entail limited site preparation, removal and disposal of existing hard surfaces, construction staging, connection to existing utilities and foundation setting. The classroom construction would consist of modular buildings, similar to the existing buildings on the site. These buildings are prefabricated and assembled off site, moved to the site for final assembly, and attached to the foundation. This construction type limits the construction time, amount of traditional construction equipment and material staging required.

3.0 THRESHOLDS AND SIGNIGICANCE CRITERIA

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a project normally would have a significant effect on the environment if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
5. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
6. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

4.0 IMPACT ANALYSIS

4.1 Air Quality

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

The project site is located in the San Francisco Bay Area Air Basin (Basin) which includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. The Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (CARB) monitor air quality within the Basin. Air quality plans describe air pollution control strategies and measures to be implemented by a city, county, region, and/or air district. The primary purpose of an air quality plan is to bring an area that does not attain federal and State air quality standards into compliance with the requirements of the federal Clean Air Act and California Clean Air Act. In addition, air quality plans are developed to ensure that an area maintains a healthful level of air quality based on the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). The Air Quality Management Plan (AQMP) is prepared by BAAQMD. The AQMP provides policies and control measures that reduce emissions to attain both State and federal ambient air quality standards.

The most recently adopted plan, the Clean Air Plan, in the Basin outlines how the San Francisco area will attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions. The Clean Air Plan assumptions for projected air emissions and pollutants in the City of East Palo Alto are based on the General Plan Land Use Designation Map which designates the project site use as "Public/Institutional". The project site is also zoned "Public Institutional". The Public Institutional Zoning District allows for the development of public schools. The project would be consistent with the development assumptions for the land use. Therefore, the project is consistent with the General Plan assumptions. The proposed project consists of four additional classrooms (approximately 4,000 square feet) consistent with the General Plan land use designation and would not increase the regional population growth or cause changes in vehicle traffic that would obstruct implementation of the Clean Air Plan in the San Francisco Bay Area Basin.

As described below, construction and operational air quality emissions generated by the proposed project would not exceed the BAAQMD's emissions thresholds. Since the proposed project would not exceed these thresholds, the proposed project would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants, and would not contribute to any non-attainment areas in the Basin.

The proposed project would result in a net increase of approximately 253 new students. The project is consistent with the City General Plan, therefore the addition of new students would be within the growth projections for the City. The project would not exceed the level of population or housing in regional planning efforts. Additionally, the proposed project would not significantly affect regional vehicle miles travelled pursuant to the CEQA Guidelines (Section 15206). Therefore, population growth from the project would be consistent with ABAG's projections for the City and with the City's General Plan.

A project would be consistent with the 2017 Clean Air Plan Progress Report if it would not exceed the growth assumptions in the plan. The primary method of determining consistency with the 2017 Clean Air Plan growth assumptions is consistency with the General Plan land use designations and zoning designations for the site. It should be noted that the Clean Air Plan does not make a specific assumption for development on the site, but bases assumptions on growth in population, travel, and business, based on socioeconomic forecasts. As noted above, the project would not exceed the growth assumptions in the General Plan. Therefore, the growth assumptions in the Clean Air Plan would not be exceeded.

Given that approval of a project would not result in significant and unavoidable air quality impacts after the application of all feasible mitigation, the project is considered consistent with the 2017 Clean Air Plan. In addition, projects are considered consistent with the 2017 Clean Air Plan if they incorporate all applicable and feasible control measures from the 2017 Clean Air Plan and would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

Mitigation Measure: Compliance with General Plan Policies and applicable state and local law would reduce air quality impacts to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant impact.

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

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the project area include ozone-precursor pollutants (i.e., reactive organic gases [ROG] and nitrogen oxides [NO_x]) and particulate matter 10 microns in size or less (PM_{10}) and particulate matter 2.5 microns in size or less ($PM_{2.5}$). Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

Construction results in the temporary generation of emissions during site preparation, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the project are estimated to last approximately three months. The project's construction-related emissions were calculated using the BAAQMD-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Project site preparation and grading are anticipated to begin in Summer 2021. Construction would entail limited site preparation, removal and disposal of existing hard surfaces, construction staging, connection to existing utilities and foundation setting. The classroom construction would consist of modular buildings, similar to the existing buildings on the site. These buildings are prefabricated and assembled off site, moved to the site for final assembly, and attached to the foundation. This construction type limits the construction time, amount of traditional construction equipment and material staging required. Paving was modeled to be completed early July 2021. Building construction was estimated to begin early July 2021 and last approximately one month. Architectural coating also begin would begin July of 2021 and last approximately one week.

The modular buildings would be pre-painted and require limited (if any) architectural coatings. However, the project is proposing to construct four additional classrooms (approximately 4,000 square feet), which would require the application of architectural coating on the outside and inside of the buildings. The highest concentration of ROG emissions would be generated from architectural coating beginning in July 2021 and lasting approximately one week. This phase includes the interior and exterior painting of the buildings. Paints would be required to comply with BAAQMD *Regulation 8, Rule 3: Architectural Coating*. *Regulation 8, Rule 3* provides specifications on painting practices and regulates the ROG content of paint.

The exact construction timeline is unknown; however, to be conservative, the earliest feasible dates were utilized in the modeling. This approach is conservative given that emissions factors decrease in future years due to regulatory and technological improvements and fleet turnover. See Appendix A: Air Quality Data for additional information regarding the construction assumptions used in this analysis. **Table 1: Maximum Daily Construction Emissions (lbs/day)** displays the maximum daily emissions in pounds per day that are expected to be generated from the construction of the proposed project in comparison to the daily thresholds established by the BAAQMD.

Table 1: Maximum Daily Construction Emissions (lbs/day)

Construction Year	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2021	9.35	9.94	0.54	0.51	2.23	0.44
BAAQMD Significance Threshold [2, 3]	*54*	*54*	*82*	*54*	*BMPs*	*BMPs*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using CalEEMod. Mitigated emissions include compliance with the BAAQMD's Basic Construction Mitigation Measures Recommended for All Projects. These measures include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum street sweepers; limit speeds on unpaved roads to 15 miles per hour; complete paving as soon as possible after grading; limit idle times to 5 minutes; properly maintain mobile and other construction equipment; and post a publicly visible sign with contact information to register dust complaints and take corrective action within 48 hours.
2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2017.
3. BMPs = Best Management Practices. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. Implementation of Basic Construction Mitigation measures are considered to mitigate fugitive dust emissions to be less than significant.

Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality Modeling Data*.

As shown in **Table 1**, construction of the proposed project would not cause exceedances for ROG, NO_x, $PM_{2.5}$, and PM_{10}. The calculated emission results for ROG, NO_x, $PM_{2.5}$, and PM_{10} from CalEEMod demonstrate that the construction of this project would not exceed maximum daily thresholds created by the BAAQMD. The proposed project emissions would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Construction impacts would be less than significant.

Operational Emissions

Operational emissions for school developments are typically generated from mobile sources (burning of fossil fuels in cars); energy sources (cooling, heating, and cooking); and area sources (landscape equipment and household products). **Table 2: Operational Emissions (lbs/day)** shows that the project's maximum net emissions would not exceed BAAQMD operational thresholds.

Table 2: Operational Emissions (lbs/day)

Emissions Source	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_X)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Buildout KIPP School						
Area	2.10	0.001	0.0002	0.0002	--	--
Energy	0.04	0.38	0.03	0.03	--	--
Mobile	2.72	7.32	0.08	0.08	9.94	2.66
Total Project Emissions	**4.86**	**7.93**	**0.11**	**0.11**	**9.94**	**2.66**
Existing[3]	6.28	8.31	0.10	0.07	9.00	1.65
Net Emissions	**-1.42**	**-0.38**	**0.01**	**0.03**	**0.94**	**1.01**
BAAQMD Significance Threshold[2]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
BAAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using CalEEMod.
2. Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, 2017.
3. The original CEQA document was completed in 2010 and used 2011 as the operational year.

Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality and GHG Data*.

Project-generated vehicle emissions have been estimated using CalEEMod. Trip generation rates associated with the project were based on the Project Trip Generation Analysis prepared by Hexagon Transportation Consultants (2020). Based on the Project's Transportation Impact Analysis, the project would result in a net total of 1,060 daily vehicle trips. Buildout of the KIPP School would result in approximately 1,880 daily vehicle trips. Although it is an expansion with increased vehicle trips, emissions are lower due to lower emissions rate from regulatory requirements, vehicle technological improvements , fleet turnover, and higher building efficiency. **Table 2** shows the net project emissions generated by vehicle traffic associated with the project would not exceed established BAAQMD regional thresholds.

BAAQMD has set its CEQA significance threshold based on the trigger levels for the federal NSR Program and BAAQMD's Regulation 2, Rule 2 for new or modified sources. The NSR Program was created to ensure projects are consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, the project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur. Project operational emissions would be less than significant.

Cumulative Emissions

The SFBAAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed above, the project's construction-related and operational emissions would not have the potential to exceed the BAAQMD significance thresholds for criteria pollutants.

Cumulative Construction Impacts. Since the BAAQMD's thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. The BAAQMD recommends Basic Construction Mitigation Measures for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with BAAQMD construction-related mitigation requirements are considered to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Operational Impacts. The BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the BAAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in **Table 1** and **Table 2**, the project's construction and operational emissions would not exceed BAAQMD thresholds. As a result, air quality emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Mitigation Measures: Compliance with General Plan Policies and applicable state and local law would reduce construction and operational air quality impacts to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant impact.

Threshold (c) Expose sensitive receptors to substantial pollutant concentrations.

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The State CEQA Guidelines indicate that a potentially significant impact could occur if a project would expose sensitive receptors to substantial pollutant concentrations. CO concentrations would be well below the state and Federal standards according to the General Plan Final EIR. The project site is surrounded on three sides by existing single-family residential development. In addition, adjacent to the site is a separately owned parcel currently used as the Canaan Church Prayer Center.

Construction Toxic Air Contaminants

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known toxic air contaminants (TAC). Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors. The closest sensitive receptor to the project site is the Canaan Church Prayer Center located adjacent to the project site. BAAQMD provides guidance for evaluating impacts from TACs in its CEQA Air Quality Guidelines document. As noted therein, an incremental cancer risk of greater than 10 cases per million at the Maximally Exposed Individual (MEI) will result in a significant impact. The BAAQMD considers exposure to annual $PM_{2.5}$ concentrations that exceed 0.3 $\mu g/m^3$ from a single source to be significant. The BAAQMD significance threshold for non-cancer hazards is 1.0.

Project construction would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required for grading, paving, and other construction activities. For construction activity, DPM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors. The closest sensitive receptor is the Canaan Church Prayer Center located adjacent to the project site and single-family residence 50 feet to the west and east of the project site.

The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Construction is temporary and would be transient throughout the site (i.e. move from location to location) and would not generate emissions in a fixed location for extended periods of time.

Construction is subject to and would comply with California regulations (e.g., California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Sections 2485 and 2449), which reduce DPM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles and limit the idling of heavy-duty construction equipment to no more than five minutes. These regulations would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Given the temporary and intermittent nature of construction activities likely to occur within specific locations in the project site (i.e., construction is not likely to occur in any one location for an extended time), the dose of DPM of any one receptor is exposed to would be limited.

The EPA recommended screening model AERSCREEN has been used to evaluate potential health effects to sensitive receptors from construction emissions. AERSCREEN is the recommended screening model based on the AERMOD dispersion model. The model produces estimates of worst-case concentrations without the need for hourly meteorological data. According to the EPA Support Center for Regulatory Atmospheric Modeling (SCRAM) website, AERSCREEN is intended to produce concentration estimates that are equal to or greater than the estimates produced by AERMOD with a

fully developed set of meteorological and terrain data.[1] Maximum (worst case) $PM_{2.5}$ exhaust construction emissions over the entire construction period were used in AERSCREEN to approximate construction DPM emissions. Risk levels were calculated with the CARB Hotspots Analysis and Reporting Program (HARP) Risk Assessment Standalone Tool (RAST) and based on the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document, Air Toxics Hot Spots Program Risk Assessment Guidelines (February 2015).

$PM_{2.5}$ construction emissions rates in grams per second were calculated from the total annual mitigated on-site exhaust emissions reported in CalEEMod (0.012 tons unmitigated) total during construction. Annual emissions were converted to grams per second and these emissions rates were input into AERSCREEN. Although project construction would occur for over a period of one year, the health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 3-year exposure scenario as recommended by the BAAQMD, and thus is conservative.[2]

Maximum unmitigated concentration of $PM_{2.5}$ during construction would be 0.0099 µg/m^3, which would not exceed the BAAQMD threshold of 0.3 µg/m^3. The highest calculated carcinogenic risk from project construction would be 3.8 per million, which would not exceed the BAAQMD threshold of 10 in one million. Non-cancer hazards for DPM would be below BAAQMD threshold, with a chronic hazard index computed at 0.01 and an acute hazard index of 0.04. Acute and chronic hazards would be below the BAAQMD significance threshold of 1.0.

Operational Toxic Air Contaminants

The project includes four additional classrooms (approximately 4,000 square feet). Therefore, the project is not anticipated to generate truck traffic and the resulting DPM. Operational TAC impacts would be less than significant.

Stationary sources within a 1,000-foot radius of the project site were reviewed using BAAQMD's Stationary Source Screening Analysis Tools. There were no stationary sources located within a 1,000-foor radius of the Project site. Therefore, cancer and $PM_{2.5}$ risks would not exceed BAAQMD thresholds.

Mobile Sources

The project would not place sensitive receptors within 1,000-feet of a major roadway (mobile TAC source). Additionally, the project's effects to existing vehicle distribution and travel speeds would be nominal. According to the Transportation Impact Analysis, the project would generate 1,060 net new daily trips. The project would include four school buses. However, the existing school currently utilizes school buses to transport students. Therefore, the addition of one or two school buses in the peak

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1 U.S. Environmental Protection Agency, *Air Quality Dispersion Modeling- Screening Models*. https://www.epa.gov/scram/air-quality-dispersion-modeling-screening-models

2 The BAAQMD recommends that the cancer risk be evaluated assuming that the average daily dose for short-term exposure lasts a minimum of three years for projects lasting three years or less (BAAQMD, *BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines*, December 2016).

hours would not generate significant increase in emissions. Any changes to vehicle distribution and travel speeds can affect vehicle emissions rates, although these changes would be minimal and would not substantially change criteria pollutant emissions, which are primarily driven by vehicle miles travelled (VMT). Traffic is also predominantly light-duty and gasoline powered and therefore any shifts in traffic would not constitute a change in substantial cancer risk. The project does not involve the increase of transit trips or routes and would not generate increased emissions from expanded service (e.g., increased bus idling service). Therefore, impacts related to cancer risk, hazards, and PM_{25} concentrations from mobile sources would be less than significant at the project site.

Carbon Monoxide Hotspots

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

The SFBAAB is designated as in attainment for carbon monoxide (CO). Emissions and ambient concentrations of CO have decreased dramatically in the SFBAAB with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the BAAQMD screening criteria notes that CO impacts may be determined to be less than significant if a project would not increase traffic volumes at local intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour for locations in heavily urban areas, where "urban canyons" formed by buildings tend to reduce air circulation. Traffic would increase along surrounding roadways during long-term operational activities.

According to the Transportation Impact Analysis prepared for the project (2020), the project would generate 291 new a.m. peak hour trips and 140 new p.m. peak hour trips. The project's effects to existing vehicle distribution and travel speeds would be nominal. Therefore, the project would not involve intersections with more than 24,000 or 44,000 vehicles per hour. As a result, the project would not have the potential to create a CO hotspot and impacts would be less than significant.

Mitigation Measures: Compliance with General Plan Policies and applicable state and local law would reduce impacts conflicting with exposing sensitive receptors to a less than significant level. No additional site-specific mitigation measures are required.

Significance Impact: Less than significant.

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

Construction

Construction activities associated with the project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon project completion. As a result, impacts to existing adjacent land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

Operational

BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds.

The project includes four additional classrooms (approximately 4,000 square feet) which are not anticipated to generate odors. None of the above listed uses are located near the project site. Impacts would be less than significant.

Mitigation Measures: Compliance with General Plan Policies and applicable state and local law would reduce impacts associated with odors to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant.

4.2 Greenhouse Gas Emissions

Background

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns and precipitation. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), as well as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These "greenhouse" gases (GHGs) allow solar radiation (sunlight) into the Earth's atmosphere but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. Concentrations of GHG have increased in the atmosphere since the industrial revolution. Human activities that generate GHG emissions include combustion of fossil fuels (CO_2 and N_2O); natural gas generated from landfills, fermentation of manure and cattle farming (CH_4); and industrial processes such as nylon and nitric acid production (N_2O).

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for GWP is CO_2; therefore, CO_2 has a GWP factor of 1. The other main GHGs that have been attributed to human activity include CH_4, which has a GWP factor of 28, and N_2O, which has a GWP factor of 265. When accounting for GHGs, all types of GHG emissions are expressed in terms of CO_2 equivalents (CO_2e) and are typically quantified in metric tons (MT) or million metric tons (MMT).

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, established a State goal of reducing GHG emissions to 1990 levels by the year 2020, which would require a reduction of approximately 173 MMT net CO_2e below "business as usual" emission levels. Senate Bill (SB) 97, a companion bill, directed the California Natural Resources Agency (Resources Agency) to certify and adopt guidelines for the mitigation of GHGs or the effects of GHG emissions. SB 97 was the State Legislature's directive to the Resources Agency to specifically establish that GHG emissions and their impacts are appropriate subjects for CEQA analysis. Executive Order (EO) S-3-05 was enacted in June 2005 and calls for an 80 percent reduction below 1990 levels by 2050. SB 32 was signed into law in 2016 and establishes an interim GHG emission reduction goal for the State to reduce GHG emissions to 40 percent below 1990 levels by the year 2030.

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

Short-Term Construction Greenhouse Gas Emissions

Construction of the project would result in direct emissions of CO_2, N_2O, and CH_4 from the operation of construction equipment and the transport of materials and construction workers to and from the project site. BAAQMD does not have a threshold for construction GHG emissions, which are one-time, short-term emissions and therefore would not significantly contribute to long-term cumulative GHG emissions impacts of the proposed project. However, the BAAQMD advises that construction GHG

should be disclosed and a determination on the significance of construction GHG emissions in relation to meeting AB 32 GHG reduction goals should be made. Total GHG emissions generated during all phases of construction were combined and are presented in **Table 3: Construction Greenhouse Gas Emissions.** The CalEEMod outputs are contained within the Appendix A, Air Quality and GHG Data.

Table 3: Construction Greenhouse Gas Emissions

Construction Year and Season	CO_2e Emissions, metric tons/year
2021	34
Emissions amortized over 30 years	1.1

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

As shown in **Table 3,** project construction-related activities would generate approximately 34 $MTCO_2e$ of GHG emissions over the course of construction. One-time, short-term construction GHG emissions are typically summed and amortized over the project's lifetime (assumed to be 30 years). It is reasonable to look at a 30-year time frame for buildings since this is a typical interval before a new building requires the first major renovation. The amortized project emissions would be approximately 1.1 $MTCO_2e$ per year. Once construction is complete, the generation of construction-related GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions would occur over the project's life. GHG emissions would result from direct emissions such as project generated vehicular traffic, on-site combustion of natural gas, and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power over the life of the project, the energy required to convey water to, and wastewater from the project site, the emissions associated with solid waste generated from the project site, and any fugitive refrigerants from air conditioning or refrigerators. **Table 4: Operational GHG Emissions**, summarizes the total GHG emissions associated with the entire KIPP School (including the proposed project) and the GHG emissions associated with the existing school.

Table 4: Operational GHG Emissions

Emissions Source	$MTCO_2e$[1]
Full Buildout KIPP School	
Area	0.01
Energy	105
Mobile	1,684
Waste	30
Water	6
Total Project	1,825

Emissions Source	$MTCO_2e$[1]
Existing School[2]	
Total Emissions	929
Net GHG Emissions[3]	**896**
Threshold	1,100
Exceeds Threshold?	**No**

1. Emissions were calculated using CalEEMod version 2016.3.2.
2. GHG emissions data from Existing Project from Mitigated Negative Declaration (MND) for the East Palo Alto Phoenix Academy adopted in August, 2010.
3. Emissions may not total due to rounding.

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

Below is a description of the primary sources of operational emissions:

- **Area Sources**. Area source emissions occur from architectural coatings, landscaping equipment, and consumer products. Landscaping is anticipated to occur throughout the project site. Additionally, the primary emissions from architectural coatings are volatile organic compounds, which are relatively insignificant as direct GHG emissions. Buildout of the KIPP School would result in 0.01 $MTCO_2eq/yr$ (refer to **Table 4**).

- **Energy Consumption**. Energy emissions occur from consumption of electricity and natural gas. Buildout of the KIPP School would result in approximately 105 $MTCO_2e/yr$ from energy consumption (refer to **Table 4**).

- **Mobile Sources**. Mobiles sources from the project were calculated with CalEEMod based on the trip generation from the Project Traffic Study. As shown in **Table 4**, the mobile source emissions from buildout of the KIPP School would be approximately 1,684 $MTCO_2eq/yr$.

- **Solid Waste**. Solid waste releases GHG emissions in the form of methane when these materials decompose. Buildout of the KIPP School would result in approximately 30 $MTCO_2e/yr$ from solid waste (refer to **Table 4**).

- **Water and Wastewater**. GHG emissions from water demand would occur from electricity consumption associated with water conveyance and treatment. Existing water efficiency regulations require the project to limit the use of turf. Buildout of the KIPP School would result in approximately 6 $MTCO_2e/yr$ from water and wastewater conveyance and treatment (refer to **Table 4**).

Table 4 shows that operational emissions from buildout of the KIPP School (including the proposed project) would generate approximately 1,825 $MTCO_2e$ per year. However, the existing school generates approximately 929 $MTCO_2e$ per year. The net GHG Emissions would be approximately 896 $MTCO_2e$ per year. The BAAQMD threshold for operational GHG emissions is 1,100 $MTCO_2e/yr$. Therefore, the project is below the threshold.

It should be noted that the operational emissions incorporate adjustments for project energy consumption based on the 2019 Title 24 Part 6 (Building Energy Efficiency Standards). The standards also require updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), nonresidential ventilation and lighting requirements would cut residential energy use by more than 50 percent (with solar) and nonresidential energy use by 30 percent. The standards also encourage demand responsive technologies including battery storage and heat pump water heaters and improve the building's thermal envelope through high performance attics, walls and windows to improve comfort and energy savings (California Energy Commission, March 2018). The project would also comply with the appliance energy efficiency standards in Title 20 of the California Code of Regulations. The Title 20 standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances. The project would be constructed according to the standards for high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems required in 2019 Title 24, Part 11 (CALGreen).

At the State and global level, improvements in technology, policy, and social behavior can also influence and reduce operational emissions generated by a project. The state is currently on a pathway to achieving the Renewable Portfolio Standards goal of 33 percent renewables by 2020 and 60 percent renewables by 2030 per SB 100. Despite these goals, the majority of the project's emissions would still be from mobile and energy sources. Future mobile source emissions are greatly dependent on changes in vehicle technology, fuels, and social behavior, which can be influenced by policies to varying degrees.

The majority of project emissions (approximately 98 percent) would occur from mobile and energy sources. As noted above, energy and mobile sources are targeted by statewide measures such as low carbon fuels, cleaner vehicles, strategies to promote sustainable communities and improved transportation choices that result in reducing VMT, continued implementation of the Renewable Portfolio Standard (the target is now set at 60 percent renewables by 2030), and extension of the Cap and Trade program (requires reductions from industrial sources, energy generation, and fossil fuels). The Cap and Trade program covers approximately 85 percent of California's GHG emissions as of January 2015. The statewide cap for GHG emissions from the capped sectors (i.e., electricity generation, industrial sources, petroleum refining, and cement production) commenced in 2013 and will decline approximately three percent each year, achieving GHG emission reductions throughout the program's duration. The passage of AB 398 in July 2017 extended the duration of the Cap and Trade program from 2020 to 2030. With continued implementation of various statewide measures, the project's operational energy and mobile source emissions would continue to decline in the future.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the proposed project would benefit from the implementation of current and potential future regulations (e.g., improvements in vehicle emissions, SB 100/renewable electricity portfolio improvements, etc.) enacted to meet an 80 percent reduction below 1990 levels by 2050.

Project emissions are shown in **Table 4**. Impacts are less than significant. Project-related GHG emissions would not result in a cumulatively considerable contribution to the significant cumulative impact of climate change.

Mitigation Measure: Compliance with General Plan Policies and applicable state and local law would reduce greenhouse gases to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant impact.

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

The City of East Palo Alto approved a Climate Action Plan (CAP) in December 2011. The CAP includes GHG emissions in 2005, a goal for emission reductions, and goals and measures to be implemented over the next several years in order to achieve GHG emissions reductions goals. The emission reduction measures were categorized into green light (high priority), yellow light (medium priority), and red light (low priority) projects. The various GHG reduction measures are either targeting energy use in buildings, transportation and land use, waste, or municipal operations. The project is consistent with the CAP and the GHG reduction goals.

As discussed above, GHGs generated by the proposed project would be below BAAQMD's 1,100 $MTCO_2e$ annual threshold for projects. Additionally, the project is an infill school development that would be constructed according to the standards for high-efficiency water and energy use required in 2019 Title 24, Part 11 (CALGreen). The project is consistent with the General Plan and land use designations. Therefore, the proposed project would not have an impact on an applicable plan adopted for the purpose of reducing GHG emissions. Impacts are less than significant.

Mitigation Measures: Compliance with General Plan Policies and applicable state and local law would reduce impacts conflicting with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant.

Appendix A

Air Quality and GHG Data

KIPP Esperanza High School

San Mateo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	253.00	Student	0.10	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Plan Set

Construction Phase - Anticpiated construction schedule

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - Per Traffic Analysis

Construction Off-road Equipment Mitigation - BAAQMD Rule Compliance

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
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tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
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tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	8.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	2.00
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tblVehicleEF	LDT1	0.11	0.40
tblVehicleEF	LDT1	0.11	0.25
tblVehicleEF	LDT1	5.4390e-003	3.2013e-003
tblVehicleEF	LDT1	9.7400e-003	0.06
tblVehicleEF	LDT1	0.73	0.78
tblVehicleEF	LDT1	2.15	2.72
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tblVehicleEF	LDT1	67.38	62.03
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.11	0.23
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.9400e-003	1.7528e-003
tblVehicleEF	LDT1	2.7630e-003	2.2596e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.7850e-003	1.6128e-003
tblVehicleEF	LDT1	2.5410e-003	2.0777e-003
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.13
tblVehicleEF	LDT1	0.02	0.00

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.14	0.55
tblVehicleEF	LDT1	0.13	0.31
tblVehicleEF	LDT1	2.8840e-003	2.8370e-003
tblVehicleEF	LDT1	7.1100e-004	6.1381e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.13
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.14	0.55
tblVehicleEF	LDT1	0.14	0.34
tblVehicleEF	LDT2	4.2290e-003	2.6446e-003
tblVehicleEF	LDT2	5.4450e-003	0.06
tblVehicleEF	LDT2	0.57	0.66
tblVehicleEF	LDT2	1.23	2.78
tblVehicleEF	LDT2	330.85	306.08
tblVehicleEF	LDT2	76.70	65.86
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.09	0.25
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.03	0.04

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.31
tblVehicleEF	LDT2	0.07	0.28
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tblVehicleEF	LDT2	7.8700e-004	6.5169e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.31
tblVehicleEF	LDT2	0.08	0.31
tblVehicleEF	LDT2	4.6120e-003	2.9216e-003
tblVehicleEF	LDT2	4.5830e-003	0.05
tblVehicleEF	LDT2	0.64	0.75
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tblVehicleEF	LDT2	0.08	0.22
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.05	0.07

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.28
tblVehicleEF	LDT2	0.06	0.24
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tblVehicleEF	LDT2	7.8300e-004	6.4089e-004
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tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.05	0.28
tblVehicleEF	LDT2	0.07	0.26
tblVehicleEF	LDT2	4.1560e-003	2.5728e-003
tblVehicleEF	LDT2	6.0580e-003	0.07
tblVehicleEF	LDT2	0.57	0.66
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tblVehicleEF	LDT2	76.70	66.62
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.27
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.01	0.02

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.38
tblVehicleEF	LDT2	0.08	0.32
tblVehicleEF	LDT2	3.2990e-003	3.0189e-003
tblVehicleEF	LDT2	7.9000e-004	6.5926e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.07	0.38
tblVehicleEF	LDT2	0.09	0.35
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tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	0.85	0.62
tblVehicleEF	LHD1	2.39	1.08
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.65
tblVehicleEF	LHD1	31.29	12.03
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tblVehicleEF	LHD1	0.81	0.52
tblVehicleEF	LHD1	0.90	0.31
tblVehicleEF	LHD1	8.9500e-004	7.9702e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
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tblVehicleEF	LHD1	8.6500e-004	2.4802e-004
tblVehicleEF	LHD1	8.5600e-004	7.6254e-004
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
tblVehicleEF	LHD1	0.01	7.8456e-003
tblVehicleEF	LHD1	7.9500e-004	2.2805e-004
tblVehicleEF	LHD1	1.7290e-003	1.2873e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0790e-003	7.9652e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.27	0.41
tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.0000e-005	8.5824e-005
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tblVehicleEF	LHD1	1.7290e-003	1.2873e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.0790e-003	7.9652e-004
tblVehicleEF	LHD1	0.13	0.10
tblVehicleEF	LHD1	0.27	0.41
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	5.2400e-003	5.3146e-003
tblVehicleEF	LHD1	0.02	7.3997e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	0.87	0.63
tblVehicleEF	LHD1	2.20	1.00
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.68
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tblVehicleEF	LHD1	0.08	0.05

tblVehicleEF	LHD1	0.77	0.50
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tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
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tblVehicleEF	LHD1	8.5600e-004	7.6254e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
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tblVehicleEF	LHD1	7.9500e-004	2.2805e-004
tblVehicleEF	LHD1	4.1590e-003	3.1308e-003
tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8270e-003	1.3699e-003
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tblVehicleEF	LHD1	4.1590e-003	3.1308e-003
tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.8270e-003	1.3699e-003
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tblVehicleEF	LHD1	0.26	0.39
tblVehicleEF	LHD1	0.23	0.07
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tblVehicleEF	LHD1	0.01	7.1089e-003
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tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	0.84	0.61
tblVehicleEF	LHD1	2.55	1.15
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.63
tblVehicleEF	LHD1	31.29	12.15
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.83	0.53
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tblVehicleEF	LHD1	8.9500e-004	7.9702e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
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tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
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tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.6300e-004	3.3582e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.30	0.45
tblVehicleEF	LHD1	0.24	0.07
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tblVehicleEF	LHD1	6.6520e-003	7.7837e-003

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tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	4.6300e-004	3.3582e-004
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tblVehicleEF	LHD1	0.30	0.45
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tblVehicleEF	LHD2	6.9280e-003	6.3016e-003
tblVehicleEF	LHD2	6.2800e-003	8.1371e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.48	0.52
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tblVehicleEF	LHD2	13.85	13.62
tblVehicleEF	LHD2	705.56	772.49
tblVehicleEF	LHD2	24.66	8.39
tblVehicleEF	LHD2	0.10	0.09
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tblVehicleEF	LHD2	1.2430e-003	1.3544e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	1.1890e-003	1.2958e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.6860e-003	2.6698e-003
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.5600e-004	4.6599e-004
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3500e-004	1.3040e-004
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tblVehicleEF	LHD2	5.4900e-004	7.5556e-004
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tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.5600e-004	4.6599e-004
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tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.09	0.04
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tblVehicleEF	LHD2	7.0270e-003	6.3795e-003
tblVehicleEF	LHD2	5.9440e-003	7.6749e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.49	0.52
tblVehicleEF	LHD2	1.09	0.62
tblVehicleEF	LHD2	13.85	13.62
tblVehicleEF	LHD2	705.56	772.50
tblVehicleEF	LHD2	24.66	8.30
tblVehicleEF	LHD2	0.10	0.09
tblVehicleEF	LHD2	0.46	0.54
tblVehicleEF	LHD2	0.41	0.18
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tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	2.6860e-003	2.6698e-003
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tblVehicleEF	LHD2	3.7900e-004	1.2712e-004
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.0800e-004	8.0139e-004
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.06	0.24
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3500e-004	1.3040e-004
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tblVehicleEF	LHD2	1.3220e-003	1.8363e-003
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.0800e-004	8.0139e-004
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	0.06	0.24
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	3.5260e-003	3.3476e-003
tblVehicleEF	LHD2	6.8620e-003	6.2500e-003
tblVehicleEF	LHD2	6.5340e-003	8.4823e-003
tblVehicleEF	LHD2	0.12	0.14

tblVehicleEF	LHD2	0.48	0.51
tblVehicleEF	LHD2	1.24	0.71
tblVehicleEF	LHD2	13.85	13.62
tblVehicleEF	LHD2	705.56	772.49
tblVehicleEF	LHD2	24.66	8.46
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tblVehicleEF	LHD2	0.45	0.20
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tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7900e-004	1.2712e-004
tblVehicleEF	LHD2	3.3000e-004	4.4197e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.5400e-004	2.0034e-004
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.07	0.28
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	1.3500e-004	1.3040e-004
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tblVehicleEF	LHD2	3.3000e-004	4.4197e-004
tblVehicleEF	LHD2	0.03	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5400e-004	2.0034e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.07	0.28
tblVehicleEF	LHD2	0.10	0.05
tblVehicleEF	MCY	0.46	0.33
tblVehicleEF	MCY	0.16	0.26
tblVehicleEF	MCY	18.66	19.02
tblVehicleEF	MCY	10.37	9.17
tblVehicleEF	MCY	172.56	213.08
tblVehicleEF	MCY	43.86	60.80
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
tblVehicleEF	MCY	3.8420e-003	3.3369e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
tblVehicleEF	MCY	0.60	0.62
tblVehicleEF	MCY	0.53	0.57
tblVehicleEF	MCY	0.36	0.38
tblVehicleEF	MCY	2.19	2.21
tblVehicleEF	MCY	0.46	1.99
tblVehicleEF	MCY	2.20	1.97
tblVehicleEF	MCY	2.0950e-003	2.1086e-003
tblVehicleEF	MCY	6.7300e-004	6.0168e-004
tblVehicleEF	MCY	0.60	0.62

tblVehicleEF	MCY	0.53	0.57
tblVehicleEF	MCY	0.36	0.38
tblVehicleEF	MCY	2.73	2.75
tblVehicleEF	MCY	0.46	1.99
tblVehicleEF	MCY	2.39	2.14
tblVehicleEF	MCY	0.44	0.32
tblVehicleEF	MCY	0.14	0.22
tblVehicleEF	MCY	17.51	17.82
tblVehicleEF	MCY	8.98	7.88
tblVehicleEF	MCY	172.56	210.87
tblVehicleEF	MCY	43.86	57.62
tblVehicleEF	MCY	1.01	1.02
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
tblVehicleEF	MCY	3.8420e-003	3.3369e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
tblVehicleEF	MCY	1.80	1.85
tblVehicleEF	MCY	0.64	0.69
tblVehicleEF	MCY	0.89	0.92
tblVehicleEF	MCY	2.10	2.12
tblVehicleEF	MCY	0.42	1.81
tblVehicleEF	MCY	1.85	1.63
tblVehicleEF	MCY	2.0740e-003	2.0867e-003
tblVehicleEF	MCY	6.3900e-004	5.7022e-004
tblVehicleEF	MCY	1.80	1.85

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tblVehicleEF	MCY	0.89	0.92
tblVehicleEF	MCY	2.63	2.64
tblVehicleEF	MCY	0.42	1.81
tblVehicleEF	MCY	2.01	1.77
tblVehicleEF	MCY	0.47	0.34
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.96	20.37
tblVehicleEF	MCY	11.66	10.37
tblVehicleEF	MCY	172.56	215.51
tblVehicleEF	MCY	43.86	63.62
tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
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tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
tblVehicleEF	MCY	0.25	0.27
tblVehicleEF	MCY	0.66	0.70
tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.26	2.29
tblVehicleEF	MCY	0.55	2.38
tblVehicleEF	MCY	2.49	2.24
tblVehicleEF	MCY	2.1180e-003	2.1326e-003
tblVehicleEF	MCY	7.0300e-004	6.2953e-004
tblVehicleEF	MCY	0.25	0.27

tblVehicleEF	MCY	0.66	0.70
tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.82	2.84
tblVehicleEF	MCY	0.55	2.38
tblVehicleEF	MCY	2.71	2.44
tblVehicleEF	MDV	6.6990e-003	2.8915e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.78	0.69
tblVehicleEF	MDV	2.12	3.04
tblVehicleEF	MDV	436.04	368.66
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tblVehicleEF	MDV	0.09	0.06
tblVehicleEF	MDV	0.17	0.29
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.7520e-003	1.5529e-003
tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
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tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.33
tblVehicleEF	MDV	0.15	0.34
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tblVehicleEF	MDV	1.0320e-003	7.7730e-004
tblVehicleEF	MDV	0.04	0.04

tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.09	0.33
tblVehicleEF	MDV	0.17	0.37
tblVehicleEF	MDV	7.2750e-003	3.1887e-003
tblVehicleEF	MDV	9.4930e-003	0.06
tblVehicleEF	MDV	0.88	0.78
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tblVehicleEF	MDV	99.57	77.32
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.15	0.25
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.7520e-003	1.5529e-003
tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
tblVehicleEF	MDV	2.2280e-003	1.8200e-003
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.30
tblVehicleEF	MDV	0.13	0.28
tblVehicleEF	MDV	4.6260e-003	3.7899e-003
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tblVehicleEF	MDV	0.09	0.11

tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.08	0.30
tblVehicleEF	MDV	0.14	0.31
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tblVehicleEF	MDV	0.78	0.69
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tblVehicleEF	MDV	0.10	0.06
tblVehicleEF	MDV	0.19	0.31
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
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tblVehicleEF	MDV	2.0000e-003	2.0000e-003
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tblVehicleEF	MDV	0.17	0.38
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tblVehicleEF	MH	9.3000e-004	2.4909e-004
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tblVehicleEF	MH	0.01	0.01
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tblVehicleEF	MH	3.2240e-003	3.2732e-003
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tblVehicleEF	MHD	0.03	0.02

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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	5.5510e-003	0.03

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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	5.5510e-003	0.03
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tblVehicleEF	MHD	7.9700e-004	1.1527e-003
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tblVehicleEF	MHD	3.0000e-003	3.0000e-003
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tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.32	0.08
tblVehicleEF	OBUS	0.01	6.7762e-003
tblVehicleEF	OBUS	7.2420e-003	5.1931e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.27	0.57
tblVehicleEF	OBUS	0.47	0.50
tblVehicleEF	OBUS	4.41	1.44
tblVehicleEF	OBUS	142.25	107.40
tblVehicleEF	OBUS	1,309.01	1,354.49
tblVehicleEF	OBUS	64.48	13.05
tblVehicleEF	OBUS	0.66	0.53
tblVehicleEF	OBUS	1.73	1.80
tblVehicleEF	OBUS	3.21	1.05
tblVehicleEF	OBUS	1.2000e-004	6.7426e-004
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0870e-003	0.02
tblVehicleEF	OBUS	8.3500e-004	1.3641e-004
tblVehicleEF	OBUS	1.1500e-004	6.4509e-004
tblVehicleEF	OBUS	0.06	0.06

tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.7190e-003	0.02
tblVehicleEF	OBUS	7.6800e-004	1.2542e-004
tblVehicleEF	OBUS	1.8290e-003	1.7995e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	7.1900e-004	6.7959e-004
tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.27	0.07
tblVehicleEF	OBUS	1.3690e-003	1.0189e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2200e-004	1.2915e-004
tblVehicleEF	OBUS	1.8290e-003	1.7995e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	7.1900e-004	6.7959e-004
tblVehicleEF	OBUS	0.08	0.07
tblVehicleEF	OBUS	0.02	0.14
tblVehicleEF	OBUS	0.30	0.08
tblVehicleEF	OBUS	0.01	6.6396e-003
tblVehicleEF	OBUS	6.9650e-003	5.0024e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.31	0.61
tblVehicleEF	OBUS	0.45	0.48
tblVehicleEF	OBUS	5.11	1.66
tblVehicleEF	OBUS	125.37	107.73
tblVehicleEF	OBUS	1,309.01	1,354.46
tblVehicleEF	OBUS	64.48	13.44
tblVehicleEF	OBUS	0.61	0.56

tblVehicleEF	OBUS	1.84	1.91
tblVehicleEF	OBUS	3.31	1.07
tblVehicleEF	OBUS	1.7300e-004	9.5560e-004
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0870e-003	0.02
tblVehicleEF	OBUS	8.3500e-004	1.3641e-004
tblVehicleEF	OBUS	1.6600e-004	9.1426e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	7.7190e-003	0.02
tblVehicleEF	OBUS	7.6800e-004	1.2542e-004
tblVehicleEF	OBUS	5.0500e-004	4.9570e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	1.5300e-004	1.4787e-004
tblVehicleEF	OBUS	0.07	0.06
tblVehicleEF	OBUS	0.02	0.15
tblVehicleEF	OBUS	0.31	0.08
tblVehicleEF	OBUS	1.2080e-003	1.0221e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.3400e-004	1.3296e-004
tblVehicleEF	OBUS	5.0500e-004	4.9570e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	1.5300e-004	1.4787e-004
tblVehicleEF	OBUS	0.08	0.07
tblVehicleEF	OBUS	0.02	0.15
tblVehicleEF	OBUS	0.33	0.08
tblVehicleEF	SBUS	0.86	0.08

tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.07	8.1022e-003
tblVehicleEF	SBUS	12.57	2.98
tblVehicleEF	SBUS	1.03	1.00
tblVehicleEF	SBUS	12.92	1.26
tblVehicleEF	SBUS	880.69	360.00
tblVehicleEF	SBUS	878.86	1,028.45
tblVehicleEF	SBUS	85.02	6.23
tblVehicleEF	SBUS	5.03	3.52
tblVehicleEF	SBUS	2.42	5.24
tblVehicleEF	SBUS	7.17	0.62
tblVehicleEF	SBUS	5.0090e-003	4.5830e-003
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	9.4470e-003	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.6050e-003	9.6268e-005
tblVehicleEF	SBUS	4.7920e-003	4.3848e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.3620e-003	2.5995e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005
tblVehicleEF	SBUS	2.7090e-003	5.6179e-004
tblVehicleEF	SBUS	0.03	7.2746e-003
tblVehicleEF	SBUS	1.52	0.36
tblVehicleEF	SBUS	1.3590e-003	2.5607e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.63	0.05
tblVehicleEF	SBUS	8.8440e-003	3.4360e-003
tblVehicleEF	SBUS	8.5820e-003	9.8653e-003

tblVehicleEF	SBUS	1.0720e-003	6.1644e-005
tblVehicleEF	SBUS	2.7090e-003	5.6179e-004
tblVehicleEF	SBUS	0.03	7.2746e-003
tblVehicleEF	SBUS	2.20	0.51
tblVehicleEF	SBUS	1.3590e-003	2.5607e-004
tblVehicleEF	SBUS	0.11	0.14
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.69	0.05
tblVehicleEF	SBUS	0.86	0.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.06	6.9907e-003
tblVehicleEF	SBUS	12.50	2.93
tblVehicleEF	SBUS	1.06	1.03
tblVehicleEF	SBUS	9.98	0.97
tblVehicleEF	SBUS	908.10	370.72
tblVehicleEF	SBUS	878.86	1,028.49
tblVehicleEF	SBUS	85.02	5.75
tblVehicleEF	SBUS	5.19	3.62
tblVehicleEF	SBUS	2.31	5.02
tblVehicleEF	SBUS	7.11	0.61
tblVehicleEF	SBUS	4.2230e-003	3.8701e-003
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	9.4470e-003	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.6050e-003	9.6268e-005
tblVehicleEF	SBUS	4.0400e-003	3.7027e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.3620e-003	2.5995e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005

tblVehicleEF	SBUS	6.3500e-003	1.3448e-003
tblVehicleEF	SBUS	0.03	7.4355e-003
tblVehicleEF	SBUS	1.51	0.35
tblVehicleEF	SBUS	2.4280e-003	4.6962e-004
tblVehicleEF	SBUS	0.09	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.54	0.04
tblVehicleEF	SBUS	9.1060e-003	3.5373e-003
tblVehicleEF	SBUS	8.5830e-003	9.8657e-003
tblVehicleEF	SBUS	1.0230e-003	5.6917e-005
tblVehicleEF	SBUS	6.3500e-003	1.3448e-003
tblVehicleEF	SBUS	0.03	7.4355e-003
tblVehicleEF	SBUS	2.20	0.51
tblVehicleEF	SBUS	2.4280e-003	4.6962e-004
tblVehicleEF	SBUS	0.11	0.14
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.60	0.04
tblVehicleEF	SBUS	0.86	0.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.07	9.0582e-003
tblVehicleEF	SBUS	12.65	3.04
tblVehicleEF	SBUS	1.01	0.98
tblVehicleEF	SBUS	15.76	1.54
tblVehicleEF	SBUS	842.84	345.20
tblVehicleEF	SBUS	878.86	1,028.41
tblVehicleEF	SBUS	85.02	6.69
tblVehicleEF	SBUS	4.82	3.40
tblVehicleEF	SBUS	2.47	5.34
tblVehicleEF	SBUS	7.22	0.62
tblVehicleEF	SBUS	6.0950e-003	5.5675e-003

tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	9.4470e-003	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.6050e-003	9.6268e-005
tblVehicleEF	SBUS	5.8310e-003	5.3266e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.3620e-003	2.5995e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005
tblVehicleEF	SBUS	1.7180e-003	3.3307e-004
tblVehicleEF	SBUS	0.03	7.7767e-003
tblVehicleEF	SBUS	1.52	0.36
tblVehicleEF	SBUS	5.1100e-004	9.2593e-005
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.70	0.05
tblVehicleEF	SBUS	8.4830e-003	3.2962e-003
tblVehicleEF	SBUS	8.5820e-003	9.8649e-003
tblVehicleEF	SBUS	1.1190e-003	6.6174e-005
tblVehicleEF	SBUS	1.7180e-003	3.3307e-004
tblVehicleEF	SBUS	0.03	7.7767e-003
tblVehicleEF	SBUS	2.21	0.51
tblVehicleEF	SBUS	5.1100e-004	9.2593e-005
tblVehicleEF	SBUS	0.11	0.13
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.77	0.06
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	4.08	5.26
tblVehicleEF	UBUS	6.72	0.82

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.26
tblVehicleEF	UBUS	7.60	3.45
tblVehicleEF	UBUS	15.38	0.09
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	1.3920e-003	3.7604e-004
tblVehicleEF	UBUS	0.03	6.3665e-003
tblVehicleEF	UBUS	8.3200e-004	2.8251e-004
tblVehicleEF	UBUS	0.41	0.01
tblVehicleEF	UBUS	7.3160e-003	0.04
tblVehicleEF	UBUS	0.50	0.06
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0260e-003	9.1607e-005
tblVehicleEF	UBUS	1.3920e-003	3.7604e-004
tblVehicleEF	UBUS	0.03	6.3665e-003
tblVehicleEF	UBUS	8.3200e-004	2.8251e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	7.3160e-003	0.04
tblVehicleEF	UBUS	0.55	0.06
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.11	5.26
tblVehicleEF	UBUS	5.43	0.67

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.00
tblVehicleEF	UBUS	7.30	3.45
tblVehicleEF	UBUS	15.32	0.09
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	3.4750e-003	8.8238e-004
tblVehicleEF	UBUS	0.03	6.8060e-003
tblVehicleEF	UBUS	1.5010e-003	4.8157e-004
tblVehicleEF	UBUS	0.42	0.01
tblVehicleEF	UBUS	6.5190e-003	0.04
tblVehicleEF	UBUS	0.44	0.05
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0040e-003	8.9024e-005
tblVehicleEF	UBUS	3.4750e-003	8.8238e-004
tblVehicleEF	UBUS	0.03	6.8060e-003
tblVehicleEF	UBUS	1.5010e-003	4.8157e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	6.5190e-003	0.04
tblVehicleEF	UBUS	0.48	0.05
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	4.06	5.26
tblVehicleEF	UBUS	7.77	0.95

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.47
tblVehicleEF	UBUS	7.72	3.45
tblVehicleEF	UBUS	15.42	0.10
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	8.7700e-004	2.7362e-004
tblVehicleEF	UBUS	0.03	6.6466e-003
tblVehicleEF	UBUS	3.0800e-004	1.2138e-004
tblVehicleEF	UBUS	0.41	0.01
tblVehicleEF	UBUS	9.0070e-003	0.05
tblVehicleEF	UBUS	0.54	0.06
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0440e-003	9.3684e-005
tblVehicleEF	UBUS	8.7700e-004	2.7362e-004
tblVehicleEF	UBUS	0.03	6.6466e-003
tblVehicleEF	UBUS	3.0800e-004	1.2138e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	9.0070e-003	0.05
tblVehicleEF	UBUS	0.60	0.07
tblVehicleTrips	ST_TR	0.61	0.00
tblVehicleTrips	SU_TR	0.25	0.00
tblVehicleTrips	WD_TR	1.71	4.20

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	9.3459	10.0247	9.1648	0.0200	2.2320	0.5420	2.6483	0.4356	0.5062	0.8246	0.0000	2,044.6356	2,044.6356	0.3789	0.0000	2,052.6900
Maximum	**9.3459**	**10.0247**	**9.1648**	**0.0200**	**2.2320**	**0.5420**	**2.6483**	**0.4356**	**0.5062**	**0.8246**	**0.0000**	**2,044.6356**	**2,044.6356**	**0.3789**	**0.0000**	**2,052.6900**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	9.3459	10.0247	9.1648	0.0200	1.0811	0.5420	1.4973	0.1976	0.5062	0.5886	0.0000	2,044.6356	2,044.6356	0.3789	0.0000	2,052.6900
Maximum	**9.3459**	**10.0247**	**9.1648**	**0.0200**	**1.0811**	**0.5420**	**1.4973**	**0.1976**	**0.5062**	**0.5886**	**0.0000**	**2,044.6356**	**2,044.6356**	**0.3789**	**0.0000**	**2,052.6900**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**51.56**	**0.00**	**43.46**	**54.63**	**0.00**	**28.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	6/7/2021	5	5	
2	Site Preparation	Site Preparation	6/8/2021	6/9/2021	5	2	
3	Grading	Grading	6/10/2021	6/21/2021	5	8	
4	Paving	Paving	6/22/2021	7/19/2021	5	20	
5	Building Construction	Building Construction	7/20/2021	8/23/2021	5	25	
6	Architectural Coating	Architectural Coating	7/21/2021	7/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38

Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	46.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

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

Category	lb/day										lb/day					
Fugitive Dust					1.9901	0.0000	1.9901	0.3013	0.0000	0.3013			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**1.9901**	**0.4073**	**2.3975**	**0.3013**	**0.3886**	**0.6899**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0786	2.7536	1.2969	7.2700e-003	0.1598	8.4200e-003	0.1682	0.0437	8.0600e-003	0.0518		827.7760	827.7760	0.1071		830.4527
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0286	0.0180	0.1848	7.0000e-004	0.0822	4.8000e-004	0.0826	0.0218	4.4000e-004	0.0222		69.4258	69.4258	1.2700e-003		69.4576
Total	**0.1072**	**2.7717**	**1.4817**	**7.9700e-003**	**0.2419**	**8.9000e-003**	**0.2508**	**0.0655**	**8.5000e-003**	**0.0740**		**897.2019**	**897.2019**	**0.1083**		**899.9103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8508	0.0000	0.8508	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797

Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.8508**	**0.4073**	**1.2581**	**0.1288**	**0.3886**	**0.5174**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0786	2.7536	1.2969	7.2700e-003	0.1525	8.4200e-003	0.1609	0.0419	8.0600e-003	0.0500		827.7760	827.7760	0.1071		830.4527
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0286	0.0180	0.1848	7.0000e-004	0.0779	4.8000e-004	0.0783	0.0207	4.4000e-004	0.0212		69.4258	69.4258	1.2700e-003		69.4576
Total	**0.1072**	**2.7717**	**1.4817**	**7.9700e-003**	**0.2303**	**8.9000e-003**	**0.2392**	**0.0627**	**8.5000e-003**	**0.0712**		**897.2019**	**897.2019**	**0.1083**		**899.9103**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0143	9.0200e-003	0.0924	3.5000e-004	0.0411	2.4000e-004	0.0413	0.0109	2.2000e-004	0.0111		34.7129	34.7129	6.3000e-004		34.7288
Total	**0.0143**	**9.0200e-003**	**0.0924**	**3.5000e-004**	**0.0411**	**2.4000e-004**	**0.0413**	**0.0109**	**2.2000e-004**	**0.0111**		**34.7129**	**34.7129**	**6.3000e-004**		**34.7288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.2267**	**0.2995**	**0.5262**	**0.0245**	**0.2755**	**0.3000**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0143	9.0200e-003	0.0924	3.5000e-004	0.0389	2.4000e-004	0.0392	0.0104	2.2000e-004	0.0106		34.7129	34.7129	6.3000e-004		34.7288
Total	**0.0143**	**9.0200e-003**	**0.0924**	**3.5000e-004**	**0.0389**	**2.4000e-004**	**0.0392**	**0.0104**	**2.2000e-004**	**0.0106**		**34.7129**	**34.7129**	**6.3000e-004**		**34.7288**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0286	0.0180	0.1848	7.0000e-004	0.0822	4.8000e-004	0.0826	0.0218	4.4000e-004	0.0222		69.4258	69.4258	1.2700e-003		69.4576

Total	**0.0286**	**0.0180**	**0.1848**	**7.0000e-004**	**0.0822**	**4.8000e-004**	**0.0826**	**0.0218**	**4.4000e-004**	**0.0222**		**69.4258**	**69.4258**	**1.2700e-003**		**69.4576**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3218	0.0000	0.3218	0.1769	0.0000	0.1769			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3218**	**0.4073**	**0.7292**	**0.1769**	**0.3886**	**0.5655**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0286	0.0180	0.1848	7.0000e-004	0.0779	4.8000e-004	0.0783	0.0207	4.4000e-004	0.0212		69.4258	69.4258	1.2700e-003		69.4576
Total	**0.0286**	**0.0180**	**0.1848**	**7.0000e-004**	**0.0779**	**4.8000e-004**	**0.0783**	**0.0207**	**4.4000e-004**	**0.0212**		**69.4258**	**69.4258**	**1.2700e-003**		**69.4576**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**		**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0325	0.3327	1.2500e-003	0.1479	8.6000e-004	0.1487	0.0392	7.9000e-004	0.0400		124.9665	124.9665	2.2800e-003		125.0236
Total	**0.0515**	**0.0325**	**0.3327**	**1.2500e-003**	**0.1479**	**8.6000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**124.9665**	**124.9665**	**2.2800e-003**		**125.0236**

Mitigated Construction On-Site

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

Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**	**0.0000**	**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0325	0.3327	1.2500e-003	0.1402	8.6000e-004	0.1410	0.0373	7.9000e-004	0.0381		124.9665	124.9665	2.2800e-003		125.0236
Total	**0.0515**	**0.0325**	**0.3327**	**1.2500e-003**	**0.1402**	**8.6000e-004**	**0.1410**	**0.0373**	**7.9000e-004**	**0.0381**		**124.9665**	**124.9665**	**2.2800e-003**		**125.0236**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2900e-003	0.1041	0.0466	2.6000e-004	6.7500e-003	2.5000e-004	7.0000e-003	1.9400e-003	2.3000e-004	2.1800e-003		28.5552	28.5552	2.5200e-003		28.6182
Worker	5.7300e-003	3.6100e-003	0.0370	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		13.8852	13.8852	2.5000e-004		13.8915
Total	**9.0200e-003**	**0.1077**	**0.0836**	**4.0000e-004**	**0.0232**	**3.5000e-004**	**0.0235**	**6.3000e-003**	**3.2000e-004**	**6.6300e-003**		**42.4403**	**42.4403**	**2.7700e-003**		**42.5097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2900e-003	0.1041	0.0466	2.6000e-004	6.4600e-003	2.5000e-004	6.7100e-003	1.8700e-003	2.3000e-004	2.1100e-003		28.5552	28.5552	2.5200e-003		28.6182
Worker	5.7300e-003	3.6100e-003	0.0370	1.4000e-004	0.0156	1.0000e-004	0.0157	4.1500e-003	9.0000e-005	4.2400e-003		13.8852	13.8852	2.5000e-004		13.8915
Total	**9.0200e-003**	**0.1077**	**0.0836**	**4.0000e-004**	**0.0220**	**3.5000e-004**	**0.0224**	**6.0200e-003**	**3.2000e-004**	**6.3500e-003**		**42.4403**	**42.4403**	**2.7700e-003**		**42.5097**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.3430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**8.5619**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.3430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**8.5619**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

KIPP Esperanza High School

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	253.00	Student	0.10	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Plan Set

Construction Phase - Anticpiated construction schedule

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - Per Traffic Analysis

Construction Off-road Equipment Mitigation - BAAQMD Rule Compliance

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	25.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	8.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	2.00
tblLandUse	LandUseSquareFeet	33,563.23	4,000.00
tblLandUse	LotAcreage	0.77	0.10
tblVehicleEF	HHD	0.23	0.03
tblVehicleEF	HHD	0.25	0.17
tblVehicleEF	HHD	0.07	2.9456e-006
tblVehicleEF	HHD	1.96	4.86
tblVehicleEF	HHD	2.66	1.00
tblVehicleEF	HHD	9.75	0.03
tblVehicleEF	HHD	3,053.65	986.47
tblVehicleEF	HHD	1,854.54	1,722.89
tblVehicleEF	HHD	30.51	0.24
tblVehicleEF	HHD	18.40	5.83
tblVehicleEF	HHD	4.42	4.02
tblVehicleEF	HHD	16.88	2.10
tblVehicleEF	HHD	0.03	5.0232e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.03

tblVehicleEF	HHD	3.0100e-004	1.5597e-006
tblVehicleEF	HHD	0.02	4.8059e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.4830e-003	8.6929e-003
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.7700e-004	1.4341e-006
tblVehicleEF	HHD	1.6000e-004	3.3389e-006
tblVehicleEF	HHD	0.01	1.6270e-004
tblVehicleEF	HHD	0.46	0.36
tblVehicleEF	HHD	1.1800e-004	2.2251e-006
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	1.3440e-003	7.6290e-004
tblVehicleEF	HHD	0.23	1.5402e-005
tblVehicleEF	HHD	0.03	8.8511e-003
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	4.6500e-004	2.3675e-006
tblVehicleEF	HHD	1.6000e-004	3.3389e-006
tblVehicleEF	HHD	0.01	1.6270e-004
tblVehicleEF	HHD	0.55	0.42
tblVehicleEF	HHD	1.1800e-004	2.2251e-006
tblVehicleEF	HHD	0.41	0.27
tblVehicleEF	HHD	1.3440e-003	7.6290e-004
tblVehicleEF	HHD	0.25	1.6864e-005
tblVehicleEF	HHD	0.22	0.03
tblVehicleEF	HHD	0.25	0.17
tblVehicleEF	HHD	0.07	2.7390e-006
tblVehicleEF	HHD	1.43	4.73
tblVehicleEF	HHD	2.72	1.00
tblVehicleEF	HHD	8.92	0.03
tblVehicleEF	HHD	3,234.90	988.66

tblVehicleEF	HHD	1,854.54	1,722.90
tblVehicleEF	HHD	30.51	0.23
tblVehicleEF	HHD	18.99	5.73
tblVehicleEF	HHD	4.25	3.87
tblVehicleEF	HHD	16.83	2.10
tblVehicleEF	HHD	0.02	4.3274e-003
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tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.03
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tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.4830e-003	8.6929e-003
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.7700e-004	1.4341e-006
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tblVehicleEF	HHD	0.43	0.37
tblVehicleEF	HHD	2.0700e-004	4.1975e-006
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tblVehicleEF	HHD	1.2790e-003	7.3524e-004
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tblVehicleEF	HHD	0.03	8.8692e-003
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	4.5200e-004	2.3242e-006
tblVehicleEF	HHD	3.8600e-004	8.5253e-006
tblVehicleEF	HHD	0.01	1.7767e-004
tblVehicleEF	HHD	0.52	0.44
tblVehicleEF	HHD	2.0700e-004	4.1975e-006
tblVehicleEF	HHD	0.41	0.27

tblVehicleEF	HHD	1.2790e-003	7.3524e-004
tblVehicleEF	HHD	0.23	1.5754e-005
tblVehicleEF	HHD	0.25	0.03
tblVehicleEF	HHD	0.25	0.17
tblVehicleEF	HHD	0.08	3.0911e-006
tblVehicleEF	HHD	2.70	5.05
tblVehicleEF	HHD	2.63	1.00
tblVehicleEF	HHD	10.41	0.03
tblVehicleEF	HHD	2,803.35	983.46
tblVehicleEF	HHD	1,854.54	1,722.89
tblVehicleEF	HHD	30.51	0.24
tblVehicleEF	HHD	17.58	5.98
tblVehicleEF	HHD	4.50	4.08
tblVehicleEF	HHD	16.92	2.10
tblVehicleEF	HHD	0.03	5.9840e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	3.0100e-004	1.5597e-006
tblVehicleEF	HHD	0.03	5.7251e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.4830e-003	8.6929e-003
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.7700e-004	1.4341e-006
tblVehicleEF	HHD	1.0100e-004	1.9315e-006
tblVehicleEF	HHD	0.01	1.7108e-004
tblVehicleEF	HHD	0.49	0.34
tblVehicleEF	HHD	5.0000e-005	8.9216e-007
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	1.5030e-003	8.6367e-004

tblVehicleEF	HHD	0.24	1.6114e-005
tblVehicleEF	HHD	0.02	8.8261e-003
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	4.7600e-004	2.4018e-006
tblVehicleEF	HHD	1.0100e-004	1.9315e-006
tblVehicleEF	HHD	0.01	1.7108e-004
tblVehicleEF	HHD	0.60	0.40
tblVehicleEF	HHD	5.0000e-005	8.9216e-007
tblVehicleEF	HHD	0.41	0.27
tblVehicleEF	HHD	1.5030e-003	8.6367e-004
tblVehicleEF	HHD	0.26	1.7643e-005
tblVehicleEF	LDA	3.4610e-003	2.0275e-003
tblVehicleEF	LDA	5.7140e-003	0.05
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tblVehicleEF	LDA	1.25	2.27
tblVehicleEF	LDA	237.19	246.96
tblVehicleEF	LDA	56.25	52.49
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.07	0.19
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.6610e-003	1.3714e-003
tblVehicleEF	LDA	2.2680e-003	1.8150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	1.5310e-003	1.2633e-003
tblVehicleEF	LDA	2.0860e-003	1.6689e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.03	0.03

tblVehicleEF	LDA	8.7340e-003	7.9905e-003
tblVehicleEF	LDA	0.05	0.21
tblVehicleEF	LDA	0.08	0.23
tblVehicleEF	LDA	2.3740e-003	2.4429e-003
tblVehicleEF	LDA	5.8400e-004	5.1948e-004
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.05	0.21
tblVehicleEF	LDA	0.08	0.25
tblVehicleEF	LDA	3.7710e-003	2.2467e-003
tblVehicleEF	LDA	4.7940e-003	0.04
tblVehicleEF	LDA	0.56	0.64
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tblVehicleEF	LDA	0.06	0.16
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.6610e-003	1.3714e-003
tblVehicleEF	LDA	2.2680e-003	1.8150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	1.5310e-003	1.2633e-003
tblVehicleEF	LDA	2.0860e-003	1.6689e-003
tblVehicleEF	LDA	0.07	0.08
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.06

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tblVehicleEF	LDA	0.04	0.19
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.5260e-003	2.5949e-003
tblVehicleEF	LDA	5.7900e-004	5.1063e-004
tblVehicleEF	LDA	0.07	0.08
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.19
tblVehicleEF	LDA	0.07	0.21
tblVehicleEF	LDA	3.4070e-003	1.9707e-003
tblVehicleEF	LDA	6.3700e-003	0.06
tblVehicleEF	LDA	0.49	0.56
tblVehicleEF	LDA	1.43	2.61
tblVehicleEF	LDA	236.26	246.02
tblVehicleEF	LDA	56.25	53.12
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.08	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.6610e-003	1.3714e-003
tblVehicleEF	LDA	2.2680e-003	1.8150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	1.5310e-003	1.2633e-003
tblVehicleEF	LDA	2.0860e-003	1.6689e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.01	0.02

tblVehicleEF	LDA	8.6040e-003	7.8545e-003
tblVehicleEF	LDA	0.05	0.24
tblVehicleEF	LDA	0.09	0.26
tblVehicleEF	LDA	2.3650e-003	2.4336e-003
tblVehicleEF	LDA	5.8700e-004	5.2565e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.05	0.24
tblVehicleEF	LDA	0.09	0.28
tblVehicleEF	LDT1	5.4990e-003	3.2789e-003
tblVehicleEF	LDT1	8.7030e-003	0.06
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tblVehicleEF	LDT1	288.82	287.63
tblVehicleEF	LDT1	67.38	61.36
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.10	0.21
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.9400e-003	1.7528e-003
tblVehicleEF	LDT1	2.7630e-003	2.2596e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.7850e-003	1.6128e-003
tblVehicleEF	LDT1	2.5410e-003	2.0777e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.14	0.12
tblVehicleEF	LDT1	0.04	0.00

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.12	0.45
tblVehicleEF	LDT1	0.12	0.27
tblVehicleEF	LDT1	2.8950e-003	2.8463e-003
tblVehicleEF	LDT1	7.0600e-004	6.0720e-004
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.14	0.12
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.12	0.45
tblVehicleEF	LDT1	0.13	0.30
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tblVehicleEF	LDT1	7.2520e-003	0.05
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tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.9400e-003	1.7528e-003
tblVehicleEF	LDT1	2.7630e-003	2.2596e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.7850e-003	1.6128e-003
tblVehicleEF	LDT1	2.5410e-003	2.0777e-003
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tblVehicleEF	LDT1	0.15	0.13
tblVehicleEF	LDT1	0.07	0.00

tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.11	0.40
tblVehicleEF	LDT1	0.10	0.23
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tblVehicleEF	LDT1	6.9900e-004	5.9775e-004
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.15	0.13
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.40
tblVehicleEF	LDT1	0.11	0.25
tblVehicleEF	LDT1	5.4390e-003	3.2013e-003
tblVehicleEF	LDT1	9.7400e-003	0.06
tblVehicleEF	LDT1	0.73	0.78
tblVehicleEF	LDT1	2.15	2.72
tblVehicleEF	LDT1	287.72	286.69
tblVehicleEF	LDT1	67.38	62.03
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.11	0.23
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.9400e-003	1.7528e-003
tblVehicleEF	LDT1	2.7630e-003	2.2596e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.7850e-003	1.6128e-003
tblVehicleEF	LDT1	2.5410e-003	2.0777e-003
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.13
tblVehicleEF	LDT1	0.02	0.00

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.14	0.55
tblVehicleEF	LDT1	0.13	0.31
tblVehicleEF	LDT1	2.8840e-003	2.8370e-003
tblVehicleEF	LDT1	7.1100e-004	6.1381e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.13
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.14	0.55
tblVehicleEF	LDT1	0.14	0.34
tblVehicleEF	LDT2	4.2290e-003	2.6446e-003
tblVehicleEF	LDT2	5.4450e-003	0.06
tblVehicleEF	LDT2	0.57	0.66
tblVehicleEF	LDT2	1.23	2.78
tblVehicleEF	LDT2	330.85	306.08
tblVehicleEF	LDT2	76.70	65.86
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.09	0.25
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.03	0.04

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.31
tblVehicleEF	LDT2	0.07	0.28
tblVehicleEF	LDT2	3.3120e-003	3.0279e-003
tblVehicleEF	LDT2	7.8700e-004	6.5169e-004
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.31
tblVehicleEF	LDT2	0.08	0.31
tblVehicleEF	LDT2	4.6120e-003	2.9216e-003
tblVehicleEF	LDT2	4.5830e-003	0.05
tblVehicleEF	LDT2	0.64	0.75
tblVehicleEF	LDT2	0.98	2.18
tblVehicleEF	LDT2	351.45	320.92
tblVehicleEF	LDT2	76.70	64.76
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.08	0.22
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.05	0.07

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.28
tblVehicleEF	LDT2	0.06	0.24
tblVehicleEF	LDT2	3.5180e-003	3.1748e-003
tblVehicleEF	LDT2	7.8300e-004	6.4089e-004
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.05	0.28
tblVehicleEF	LDT2	0.07	0.26
tblVehicleEF	LDT2	4.1560e-003	2.5728e-003
tblVehicleEF	LDT2	6.0580e-003	0.07
tblVehicleEF	LDT2	0.57	0.66
tblVehicleEF	LDT2	1.41	3.19
tblVehicleEF	LDT2	329.59	305.17
tblVehicleEF	LDT2	76.70	66.62
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.27
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.01	0.02

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.38
tblVehicleEF	LDT2	0.08	0.32
tblVehicleEF	LDT2	3.2990e-003	3.0189e-003
tblVehicleEF	LDT2	7.9000e-004	6.5926e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.07	0.38
tblVehicleEF	LDT2	0.09	0.35
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tblVehicleEF	LHD1	0.01	7.2237e-003
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tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	0.85	0.62
tblVehicleEF	LHD1	2.39	1.08
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.65
tblVehicleEF	LHD1	31.29	12.03
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.81	0.52
tblVehicleEF	LHD1	0.90	0.31
tblVehicleEF	LHD1	8.9500e-004	7.9702e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
tblVehicleEF	LHD1	0.01	8.2509e-003
tblVehicleEF	LHD1	8.6500e-004	2.4802e-004
tblVehicleEF	LHD1	8.5600e-004	7.6254e-004
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
tblVehicleEF	LHD1	0.01	7.8456e-003
tblVehicleEF	LHD1	7.9500e-004	2.2805e-004
tblVehicleEF	LHD1	1.7290e-003	1.2873e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0790e-003	7.9652e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.27	0.41
tblVehicleEF	LHD1	0.23	0.07
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tblVehicleEF	LHD1	6.6520e-003	7.7838e-003
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tblVehicleEF	LHD1	1.7290e-003	1.2873e-003
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tblVehicleEF	LHD1	1.0790e-003	7.9652e-004
tblVehicleEF	LHD1	0.13	0.10
tblVehicleEF	LHD1	0.27	0.41
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	5.2400e-003	5.3146e-003
tblVehicleEF	LHD1	0.02	7.3997e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	0.87	0.63
tblVehicleEF	LHD1	2.20	1.00
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.68
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tblVehicleEF	LHD1	0.08	0.05

tblVehicleEF	LHD1	0.77	0.50
tblVehicleEF	LHD1	0.83	0.29
tblVehicleEF	LHD1	8.9500e-004	7.9702e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
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tblVehicleEF	LHD1	8.6500e-004	2.4802e-004
tblVehicleEF	LHD1	8.5600e-004	7.6254e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
tblVehicleEF	LHD1	0.01	7.8456e-003
tblVehicleEF	LHD1	7.9500e-004	2.2805e-004
tblVehicleEF	LHD1	4.1590e-003	3.1308e-003
tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8270e-003	1.3699e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.26	0.39
tblVehicleEF	LHD1	0.21	0.06
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tblVehicleEF	LHD1	6.6520e-003	7.7841e-003
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tblVehicleEF	LHD1	4.1590e-003	3.1308e-003
tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.8270e-003	1.3699e-003
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tblVehicleEF	LHD1	0.26	0.39
tblVehicleEF	LHD1	0.23	0.07
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tblVehicleEF	LHD1	0.01	7.1089e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	0.84	0.61
tblVehicleEF	LHD1	2.55	1.15
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.63
tblVehicleEF	LHD1	31.29	12.15
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.83	0.53
tblVehicleEF	LHD1	0.94	0.32
tblVehicleEF	LHD1	8.9500e-004	7.9702e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
tblVehicleEF	LHD1	0.01	8.2509e-003
tblVehicleEF	LHD1	8.6500e-004	2.4802e-004
tblVehicleEF	LHD1	8.5600e-004	7.6254e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
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tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.6300e-004	3.3582e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.30	0.45
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	9.0000e-005	8.5824e-005
tblVehicleEF	LHD1	6.6520e-003	7.7837e-003

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tblVehicleEF	LHD1	1.0170e-003	7.4651e-004
tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	4.6300e-004	3.3582e-004
tblVehicleEF	LHD1	0.13	0.10
tblVehicleEF	LHD1	0.30	0.45
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tblVehicleEF	LHD2	6.2800e-003	8.1371e-003
tblVehicleEF	LHD2	0.12	0.14
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tblVehicleEF	LHD2	13.85	13.62
tblVehicleEF	LHD2	705.56	772.49
tblVehicleEF	LHD2	24.66	8.39
tblVehicleEF	LHD2	0.10	0.09
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tblVehicleEF	LHD2	1.2430e-003	1.3544e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.1200e-004	1.3825e-004
tblVehicleEF	LHD2	1.1890e-003	1.2958e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.6860e-003	2.6698e-003
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tblVehicleEF	LHD2	5.4900e-004	7.5556e-004
tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.5600e-004	4.6599e-004
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3500e-004	1.3040e-004
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tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.5600e-004	4.6599e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.09	0.04
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tblVehicleEF	LHD2	7.0270e-003	6.3795e-003
tblVehicleEF	LHD2	5.9440e-003	7.6749e-003
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tblVehicleEF	LHD2	0.49	0.52
tblVehicleEF	LHD2	1.09	0.62
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tblVehicleEF	LHD2	705.56	772.50
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tblVehicleEF	LHD2	0.10	0.09
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tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	1.3220e-003	1.8363e-003
tblVehicleEF	LHD2	0.03	0.04
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tblVehicleEF	LHD2	6.0800e-004	8.0139e-004
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	0.06	0.24
tblVehicleEF	LHD2	0.09	0.04
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tblVehicleEF	LHD2	6.8620e-003	6.2500e-003
tblVehicleEF	LHD2	6.5340e-003	8.4823e-003
tblVehicleEF	LHD2	0.12	0.14

tblVehicleEF	LHD2	0.48	0.51
tblVehicleEF	LHD2	1.24	0.71
tblVehicleEF	LHD2	13.85	13.62
tblVehicleEF	LHD2	705.56	772.49
tblVehicleEF	LHD2	24.66	8.46
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tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	4.1200e-004	1.3825e-004
tblVehicleEF	LHD2	1.1890e-003	1.2958e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.6860e-003	2.6698e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7900e-004	1.2712e-004
tblVehicleEF	LHD2	3.3000e-004	4.4197e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.5400e-004	2.0034e-004
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.07	0.28
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	1.3500e-004	1.3040e-004
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tblVehicleEF	LHD2	3.3000e-004	4.4197e-004
tblVehicleEF	LHD2	0.03	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5400e-004	2.0034e-004
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tblVehicleEF	LHD2	0.07	0.28
tblVehicleEF	LHD2	0.10	0.05
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tblVehicleEF	MCY	18.66	19.02
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tblVehicleEF	MCY	172.56	213.08
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tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
tblVehicleEF	MCY	3.8420e-003	3.3369e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
tblVehicleEF	MCY	0.60	0.62
tblVehicleEF	MCY	0.53	0.57
tblVehicleEF	MCY	0.36	0.38
tblVehicleEF	MCY	2.19	2.21
tblVehicleEF	MCY	0.46	1.99
tblVehicleEF	MCY	2.20	1.97
tblVehicleEF	MCY	2.0950e-003	2.1086e-003
tblVehicleEF	MCY	6.7300e-004	6.0168e-004
tblVehicleEF	MCY	0.60	0.62

tblVehicleEF	MCY	0.53	0.57
tblVehicleEF	MCY	0.36	0.38
tblVehicleEF	MCY	2.73	2.75
tblVehicleEF	MCY	0.46	1.99
tblVehicleEF	MCY	2.39	2.14
tblVehicleEF	MCY	0.44	0.32
tblVehicleEF	MCY	0.14	0.22
tblVehicleEF	MCY	17.51	17.82
tblVehicleEF	MCY	8.98	7.88
tblVehicleEF	MCY	172.56	210.87
tblVehicleEF	MCY	43.86	57.62
tblVehicleEF	MCY	1.01	1.02
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
tblVehicleEF	MCY	3.8420e-003	3.3369e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
tblVehicleEF	MCY	1.80	1.85
tblVehicleEF	MCY	0.64	0.69
tblVehicleEF	MCY	0.89	0.92
tblVehicleEF	MCY	2.10	2.12
tblVehicleEF	MCY	0.42	1.81
tblVehicleEF	MCY	1.85	1.63
tblVehicleEF	MCY	2.0740e-003	2.0867e-003
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tblVehicleEF	MCY	1.80	1.85

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tblVehicleEF	MCY	0.89	0.92
tblVehicleEF	MCY	2.63	2.64
tblVehicleEF	MCY	0.42	1.81
tblVehicleEF	MCY	2.01	1.77
tblVehicleEF	MCY	0.47	0.34
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.96	20.37
tblVehicleEF	MCY	11.66	10.37
tblVehicleEF	MCY	172.56	215.51
tblVehicleEF	MCY	43.86	63.62
tblVehicleEF	MCY	1.23	1.23
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
tblVehicleEF	MCY	3.8420e-003	3.3369e-003
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tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
tblVehicleEF	MCY	0.25	0.27
tblVehicleEF	MCY	0.66	0.70
tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.26	2.29
tblVehicleEF	MCY	0.55	2.38
tblVehicleEF	MCY	2.49	2.24
tblVehicleEF	MCY	2.1180e-003	2.1326e-003
tblVehicleEF	MCY	7.0300e-004	6.2953e-004
tblVehicleEF	MCY	0.25	0.27

tblVehicleEF	MCY	0.66	0.70
tblVehicleEF	MCY	0.11	0.12
tblVehicleEF	MCY	2.82	2.84
tblVehicleEF	MCY	0.55	2.38
tblVehicleEF	MCY	2.71	2.44
tblVehicleEF	MDV	6.6990e-003	2.8915e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.78	0.69
tblVehicleEF	MDV	2.12	3.04
tblVehicleEF	MDV	436.04	368.66
tblVehicleEF	MDV	99.57	78.55
tblVehicleEF	MDV	0.09	0.06
tblVehicleEF	MDV	0.17	0.29
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.7520e-003	1.5529e-003
tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
tblVehicleEF	MDV	2.2280e-003	1.8200e-003
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.33
tblVehicleEF	MDV	0.15	0.34
tblVehicleEF	MDV	4.3610e-003	3.6435e-003
tblVehicleEF	MDV	1.0320e-003	7.7730e-004
tblVehicleEF	MDV	0.04	0.04

tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.09	0.33
tblVehicleEF	MDV	0.17	0.37
tblVehicleEF	MDV	7.2750e-003	3.1887e-003
tblVehicleEF	MDV	9.4930e-003	0.06
tblVehicleEF	MDV	0.88	0.78
tblVehicleEF	MDV	1.68	2.39
tblVehicleEF	MDV	462.43	383.46
tblVehicleEF	MDV	99.57	77.32
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.15	0.25
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.7520e-003	1.5529e-003
tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
tblVehicleEF	MDV	2.2280e-003	1.8200e-003
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.30
tblVehicleEF	MDV	0.13	0.28
tblVehicleEF	MDV	4.6260e-003	3.7899e-003
tblVehicleEF	MDV	1.0250e-003	7.6519e-004
tblVehicleEF	MDV	0.09	0.11

tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.08	0.30
tblVehicleEF	MDV	0.14	0.31
tblVehicleEF	MDV	6.6080e-003	2.8209e-003
tblVehicleEF	MDV	0.01	0.08
tblVehicleEF	MDV	0.78	0.69
tblVehicleEF	MDV	2.44	3.50
tblVehicleEF	MDV	434.42	367.76
tblVehicleEF	MDV	99.57	79.41
tblVehicleEF	MDV	0.10	0.06
tblVehicleEF	MDV	0.19	0.31
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
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tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
tblVehicleEF	MDV	2.2280e-003	1.8200e-003
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tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.40
tblVehicleEF	MDV	0.17	0.38
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tblVehicleEF	MDV	1.0380e-003	7.8579e-004
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tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.10	0.40
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tblVehicleEF	MH	0.95	1.03
tblVehicleEF	MH	0.67	0.24
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.0110e-003	2.7091e-004
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2240e-003	3.2732e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.3000e-004	2.4909e-004
tblVehicleEF	MH	0.39	0.38
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.17	0.16
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.91
tblVehicleEF	MH	0.27	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.5600e-004	1.7829e-004
tblVehicleEF	MH	0.39	0.38

tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.17	0.16
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.01	0.91
tblVehicleEF	MH	0.29	0.10
tblVehicleEF	MH	0.02	8.0784e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.27	0.76
tblVehicleEF	MH	4.35	1.87
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tblVehicleEF	MH	57.35	17.74
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tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.0110e-003	2.7091e-004
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2240e-003	3.2732e-003
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tblVehicleEF	MH	9.3000e-004	2.4909e-004
tblVehicleEF	MH	0.94	0.89
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.30	0.28
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.88
tblVehicleEF	MH	0.25	0.08
tblVehicleEF	MH	0.01	0.01
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tblVehicleEF	MH	0.94	0.89

tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.30	0.28
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.01	0.88
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tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.0110e-003	2.7091e-004
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2240e-003	3.2732e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.3000e-004	2.4909e-004
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tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.98
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tblVehicleEF	MH	0.01	0.01
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tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.08	0.06
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tblVehicleEF	MHD	0.39	0.38
tblVehicleEF	MHD	0.37	0.43
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tblVehicleEF	MHD	0.01	0.01
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tblVehicleEF	MHD	5.3040e-003	0.03
tblVehicleEF	MHD	8.3200e-004	1.1658e-004
tblVehicleEF	MHD	6.4100e-004	3.4282e-004
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tblVehicleEF	MHD	0.03	0.02

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tblVehicleEF	MHD	0.35	0.06
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tblVehicleEF	MHD	7.0800e-004	1.0221e-004
tblVehicleEF	MHD	6.4100e-004	3.4282e-004
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tblVehicleEF	MHD	0.04	0.03
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tblVehicleEF	MHD	0.27	0.31
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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	5.5510e-003	0.03

tblVehicleEF	MHD	9.0500e-004	1.2679e-004
tblVehicleEF	MHD	5.5200e-004	8.0364e-004
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tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.3040e-003	0.03
tblVehicleEF	MHD	8.3200e-004	1.1658e-004
tblVehicleEF	MHD	1.5910e-003	8.5200e-004
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tblVehicleEF	MHD	0.02	0.11
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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	5.5510e-003	0.03
tblVehicleEF	MHD	9.0500e-004	1.2679e-004
tblVehicleEF	MHD	7.9700e-004	1.1527e-003
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	5.3040e-003	0.03
tblVehicleEF	MHD	8.3200e-004	1.1658e-004
tblVehicleEF	MHD	3.6900e-004	1.9702e-004
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tblVehicleEF	MHD	0.02	0.13
tblVehicleEF	MHD	0.37	0.06
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tblVehicleEF	MHD	3.6900e-004	1.9702e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.6600e-004	8.8042e-005
tblVehicleEF	MHD	0.06	0.08

tblVehicleEF	MHD	0.02	0.13
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tblVehicleEF	OBUS	3.27	1.06
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0870e-003	0.02
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tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
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tblVehicleEF	OBUS	7.8600e-004	7.7924e-004
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tblVehicleEF	OBUS	0.06	0.06
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tblVehicleEF	OBUS	1.2000e-004	6.7426e-004
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tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
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tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.8290e-003	1.7995e-003
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tblVehicleEF	OBUS	0.06	0.06
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tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.5300e-004	1.4787e-004
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tblVehicleEF	OBUS	0.02	0.15
tblVehicleEF	OBUS	0.31	0.08
tblVehicleEF	OBUS	1.2080e-003	1.0221e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.3400e-004	1.3296e-004
tblVehicleEF	OBUS	5.0500e-004	4.9570e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	1.5300e-004	1.4787e-004
tblVehicleEF	OBUS	0.08	0.07
tblVehicleEF	OBUS	0.02	0.15
tblVehicleEF	OBUS	0.33	0.08
tblVehicleEF	SBUS	0.86	0.08

tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.07	8.1022e-003
tblVehicleEF	SBUS	12.57	2.98
tblVehicleEF	SBUS	1.03	1.00
tblVehicleEF	SBUS	12.92	1.26
tblVehicleEF	SBUS	880.69	360.00
tblVehicleEF	SBUS	878.86	1,028.45
tblVehicleEF	SBUS	85.02	6.23
tblVehicleEF	SBUS	5.03	3.52
tblVehicleEF	SBUS	2.42	5.24
tblVehicleEF	SBUS	7.17	0.62
tblVehicleEF	SBUS	5.0090e-003	4.5830e-003
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	9.4470e-003	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.6050e-003	9.6268e-005
tblVehicleEF	SBUS	4.7920e-003	4.3848e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.3620e-003	2.5995e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005
tblVehicleEF	SBUS	2.7090e-003	5.6179e-004
tblVehicleEF	SBUS	0.03	7.2746e-003
tblVehicleEF	SBUS	1.52	0.36
tblVehicleEF	SBUS	1.3590e-003	2.5607e-004
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.63	0.05
tblVehicleEF	SBUS	8.8440e-003	3.4360e-003
tblVehicleEF	SBUS	8.5820e-003	9.8653e-003

tblVehicleEF	SBUS	1.0720e-003	6.1644e-005
tblVehicleEF	SBUS	2.7090e-003	5.6179e-004
tblVehicleEF	SBUS	0.03	7.2746e-003
tblVehicleEF	SBUS	2.20	0.51
tblVehicleEF	SBUS	1.3590e-003	2.5607e-004
tblVehicleEF	SBUS	0.11	0.14
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.69	0.05
tblVehicleEF	SBUS	0.86	0.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.06	6.9907e-003
tblVehicleEF	SBUS	12.50	2.93
tblVehicleEF	SBUS	1.06	1.03
tblVehicleEF	SBUS	9.98	0.97
tblVehicleEF	SBUS	908.10	370.72
tblVehicleEF	SBUS	878.86	1,028.49
tblVehicleEF	SBUS	85.02	5.75
tblVehicleEF	SBUS	5.19	3.62
tblVehicleEF	SBUS	2.31	5.02
tblVehicleEF	SBUS	7.11	0.61
tblVehicleEF	SBUS	4.2230e-003	3.8701e-003
tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	9.4470e-003	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.6050e-003	9.6268e-005
tblVehicleEF	SBUS	4.0400e-003	3.7027e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.3620e-003	2.5995e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005

tblVehicleEF	SBUS	6.3500e-003	1.3448e-003
tblVehicleEF	SBUS	0.03	7.4355e-003
tblVehicleEF	SBUS	1.51	0.35
tblVehicleEF	SBUS	2.4280e-003	4.6962e-004
tblVehicleEF	SBUS	0.09	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.54	0.04
tblVehicleEF	SBUS	9.1060e-003	3.5373e-003
tblVehicleEF	SBUS	8.5830e-003	9.8657e-003
tblVehicleEF	SBUS	1.0230e-003	5.6917e-005
tblVehicleEF	SBUS	6.3500e-003	1.3448e-003
tblVehicleEF	SBUS	0.03	7.4355e-003
tblVehicleEF	SBUS	2.20	0.51
tblVehicleEF	SBUS	2.4280e-003	4.6962e-004
tblVehicleEF	SBUS	0.11	0.14
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.60	0.04
tblVehicleEF	SBUS	0.86	0.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.07	9.0582e-003
tblVehicleEF	SBUS	12.65	3.04
tblVehicleEF	SBUS	1.01	0.98
tblVehicleEF	SBUS	15.76	1.54
tblVehicleEF	SBUS	842.84	345.20
tblVehicleEF	SBUS	878.86	1,028.41
tblVehicleEF	SBUS	85.02	6.69
tblVehicleEF	SBUS	4.82	3.40
tblVehicleEF	SBUS	2.47	5.34
tblVehicleEF	SBUS	7.22	0.62
tblVehicleEF	SBUS	6.0950e-003	5.5675e-003

tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	9.4470e-003	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.6050e-003	9.6268e-005
tblVehicleEF	SBUS	5.8310e-003	5.3266e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.3620e-003	2.5995e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005
tblVehicleEF	SBUS	1.7180e-003	3.3307e-004
tblVehicleEF	SBUS	0.03	7.7767e-003
tblVehicleEF	SBUS	1.52	0.36
tblVehicleEF	SBUS	5.1100e-004	9.2593e-005
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.70	0.05
tblVehicleEF	SBUS	8.4830e-003	3.2962e-003
tblVehicleEF	SBUS	8.5820e-003	9.8649e-003
tblVehicleEF	SBUS	1.1190e-003	6.6174e-005
tblVehicleEF	SBUS	1.7180e-003	3.3307e-004
tblVehicleEF	SBUS	0.03	7.7767e-003
tblVehicleEF	SBUS	2.21	0.51
tblVehicleEF	SBUS	5.1100e-004	9.2593e-005
tblVehicleEF	SBUS	0.11	0.13
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.77	0.06
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	4.08	5.26
tblVehicleEF	UBUS	6.72	0.82

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.26
tblVehicleEF	UBUS	7.60	3.45
tblVehicleEF	UBUS	15.38	0.09
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	1.3920e-003	3.7604e-004
tblVehicleEF	UBUS	0.03	6.3665e-003
tblVehicleEF	UBUS	8.3200e-004	2.8251e-004
tblVehicleEF	UBUS	0.41	0.01
tblVehicleEF	UBUS	7.3160e-003	0.04
tblVehicleEF	UBUS	0.50	0.06
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0260e-003	9.1607e-005
tblVehicleEF	UBUS	1.3920e-003	3.7604e-004
tblVehicleEF	UBUS	0.03	6.3665e-003
tblVehicleEF	UBUS	8.3200e-004	2.8251e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	7.3160e-003	0.04
tblVehicleEF	UBUS	0.55	0.06
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.11	5.26
tblVehicleEF	UBUS	5.43	0.67

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.00
tblVehicleEF	UBUS	7.30	3.45
tblVehicleEF	UBUS	15.32	0.09
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	3.4750e-003	8.8238e-004
tblVehicleEF	UBUS	0.03	6.8060e-003
tblVehicleEF	UBUS	1.5010e-003	4.8157e-004
tblVehicleEF	UBUS	0.42	0.01
tblVehicleEF	UBUS	6.5190e-003	0.04
tblVehicleEF	UBUS	0.44	0.05
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0040e-003	8.9024e-005
tblVehicleEF	UBUS	3.4750e-003	8.8238e-004
tblVehicleEF	UBUS	0.03	6.8060e-003
tblVehicleEF	UBUS	1.5010e-003	4.8157e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	6.5190e-003	0.04
tblVehicleEF	UBUS	0.48	0.05
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	4.06	5.26
tblVehicleEF	UBUS	7.77	0.95

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.47
tblVehicleEF	UBUS	7.72	3.45
tblVehicleEF	UBUS	15.42	0.10
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	8.7700e-004	2.7362e-004
tblVehicleEF	UBUS	0.03	6.6466e-003
tblVehicleEF	UBUS	3.0800e-004	1.2138e-004
tblVehicleEF	UBUS	0.41	0.01
tblVehicleEF	UBUS	9.0070e-003	0.05
tblVehicleEF	UBUS	0.54	0.06
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0440e-003	9.3684e-005
tblVehicleEF	UBUS	8.7700e-004	2.7362e-004
tblVehicleEF	UBUS	0.03	6.6466e-003
tblVehicleEF	UBUS	3.0800e-004	1.2138e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	9.0070e-003	0.05
tblVehicleEF	UBUS	0.60	0.07
tblVehicleTrips	ST_TR	0.61	0.00
tblVehicleTrips	SU_TR	0.25	0.00
tblVehicleTrips	WD_TR	1.71	4.20

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	9.3451	9.9389	9.1625	0.0201	2.2320	0.5420	2.6481	0.4356	0.5061	0.8246	0.0000	2,058.0858	2,058.0858	0.3789	0.0000	2,066.1238
Maximum	**9.3451**	**9.9389**	**9.1625**	**0.0201**	**2.2320**	**0.5420**	**2.6481**	**0.4356**	**0.5061**	**0.8246**	**0.0000**	**2,058.0858**	**2,058.0858**	**0.3789**	**0.0000**	**2,066.1238**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	9.3451	9.9389	9.1625	0.0201	1.0811	0.5420	1.4971	0.1976	0.5061	0.5884	0.0000	2,058.0858	2,058.0858	0.3789	0.0000	2,066.1238
Maximum	**9.3451**	**9.9389**	**9.1625**	**0.0201**	**1.0811**	**0.5420**	**1.4971**	**0.1976**	**0.5061**	**0.5884**	**0.0000**	**2,058.0858**	**2,058.0858**	**0.3789**	**0.0000**	**2,066.1238**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**51.56**	**0.00**	**43.46**	**54.63**	**0.00**	**28.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	6/7/2021	5	5	
2	Site Preparation	Site Preparation	6/8/2021	6/9/2021	5	2	
3	Grading	Grading	6/10/2021	6/21/2021	5	8	
4	Paving	Paving	6/22/2021	7/19/2021	5	20	
5	Building Construction	Building Construction	7/20/2021	8/23/2021	5	25	
6	Architectural Coating	Architectural Coating	7/21/2021	7/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38

Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	46.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

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

Category	lb/day										lb/day					
Fugitive Dust					1.9901	0.0000	1.9901	0.3013	0.0000	0.3013			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**1.9901**	**0.4073**	**2.3975**	**0.3013**	**0.3886**	**0.6899**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0770	2.6713	1.2730	7.3500e-003	0.1598	8.2200e-003	0.1680	0.0437	7.8600e-003	0.0516		836.6749	836.6749	0.1064		839.3337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0256	0.0146	0.1916	7.4000e-004	0.0822	4.8000e-004	0.0826	0.0218	4.4000e-004	0.0222		73.9770	73.9770	1.3300e-003		74.0104
Total	**0.1027**	**2.6859**	**1.4646**	**8.0900e-003**	**0.2419**	**8.7000e-003**	**0.2506**	**0.0655**	**8.3000e-003**	**0.0738**		**910.6520**	**910.6520**	**0.1077**		**913.3441**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8508	0.0000	0.8508	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797

Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.8508**	**0.4073**	**1.2581**	**0.1288**	**0.3886**	**0.5174**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0770	2.6713	1.2730	7.3500e-003	0.1525	8.2200e-003	0.1607	0.0419	7.8600e-003	0.0498		836.6749	836.6749	0.1064		839.3337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0256	0.0146	0.1916	7.4000e-004	0.0779	4.8000e-004	0.0783	0.0207	4.4000e-004	0.0212		73.9770	73.9770	1.3300e-003		74.0104
Total	**0.1027**	**2.6859**	**1.4646**	**8.0900e-003**	**0.2303**	**8.7000e-003**	**0.2390**	**0.0627**	**8.3000e-003**	**0.0710**		**910.6520**	**910.6520**	**0.1077**		**913.3441**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0128	7.3100e-003	0.0958	3.7000e-004	0.0411	2.4000e-004	0.0413	0.0109	2.2000e-004	0.0111		36.9885	36.9885	6.7000e-004		37.0052
Total	**0.0128**	**7.3100e-003**	**0.0958**	**3.7000e-004**	**0.0411**	**2.4000e-004**	**0.0413**	**0.0109**	**2.2000e-004**	**0.0111**		**36.9885**	**36.9885**	**6.7000e-004**		**37.0052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2267	0.0000	0.2267	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.2267**	**0.2995**	**0.5262**	**0.0245**	**0.2755**	**0.3000**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0128	7.3100e-003	0.0958	3.7000e-004	0.0389	2.4000e-004	0.0392	0.0104	2.2000e-004	0.0106		36.9885	36.9885	6.7000e-004		37.0052
Total	**0.0128**	**7.3100e-003**	**0.0958**	**3.7000e-004**	**0.0389**	**2.4000e-004**	**0.0392**	**0.0104**	**2.2000e-004**	**0.0106**		**36.9885**	**36.9885**	**6.7000e-004**		**37.0052**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.7528**	**0.4073**	**1.1601**	**0.4138**	**0.3886**	**0.8024**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0256	0.0146	0.1916	7.4000e-004	0.0822	4.8000e-004	0.0826	0.0218	4.4000e-004	0.0222		73.9770	73.9770	1.3300e-003		74.0104

Total	**0.0256**	**0.0146**	**0.1916**	**7.4000e-004**	**0.0822**	**4.8000e-004**	**0.0826**	**0.0218**	**4.4000e-004**	**0.0222**		**73.9770**	**73.9770**	**1.3300e-003**		**74.0104**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3218	0.0000	0.3218	0.1769	0.0000	0.1769			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.3218**	**0.4073**	**0.7292**	**0.1769**	**0.3886**	**0.5655**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0256	0.0146	0.1916	7.4000e-004	0.0779	4.8000e-004	0.0783	0.0207	4.4000e-004	0.0212		73.9770	73.9770	1.3300e-003		74.0104
Total	**0.0256**	**0.0146**	**0.1916**	**7.4000e-004**	**0.0779**	**4.8000e-004**	**0.0783**	**0.0207**	**4.4000e-004**	**0.0212**		**73.9770**	**73.9770**	**1.3300e-003**		**74.0104**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**		**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0263	0.3449	1.3300e-003	0.1479	8.6000e-004	0.1487	0.0392	7.9000e-004	0.0400		133.1587	133.1587	2.4000e-003		133.2187
Total	**0.0462**	**0.0263**	**0.3449**	**1.3300e-003**	**0.1479**	**8.6000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**133.1587**	**133.1587**	**2.4000e-003**		**133.2187**

Mitigated Construction On-Site

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

Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7214**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**	**0.0000**	**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0263	0.3449	1.3300e-003	0.1402	8.6000e-004	0.1410	0.0373	7.9000e-004	0.0381		133.1587	133.1587	2.4000e-003		133.2187
Total	**0.0462**	**0.0263**	**0.3449**	**1.3300e-003**	**0.1402**	**8.6000e-004**	**0.1410**	**0.0373**	**7.9000e-004**	**0.0381**		**133.1587**	**133.1587**	**2.4000e-003**		**133.2187**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1200e-003	0.1027	0.0429	2.6000e-004	6.7500e-003	2.3000e-004	6.9800e-003	1.9400e-003	2.2000e-004	2.1700e-003		29.0601	29.0601	2.4700e-003		29.1218
Worker	5.1300e-003	2.9200e-003	0.0383	1.5000e-004	0.0164	1.0000e-004	0.0165	4.3600e-003	9.0000e-005	4.4500e-003		14.7954	14.7954	2.7000e-004		14.8021
Total	**8.2500e-003**	**0.1056**	**0.0812**	**4.1000e-004**	**0.0232**	**3.3000e-004**	**0.0235**	**6.3000e-003**	**3.1000e-004**	**6.6200e-003**		**43.8555**	**43.8555**	**2.7400e-003**		**43.9239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1200e-003	0.1027	0.0429	2.6000e-004	6.4600e-003	2.3000e-004	6.6900e-003	1.8700e-003	2.2000e-004	2.0900e-003		29.0601	29.0601	2.4700e-003		29.1218
Worker	5.1300e-003	2.9200e-003	0.0383	1.5000e-004	0.0156	1.0000e-004	0.0157	4.1500e-003	9.0000e-005	4.2400e-003		14.7954	14.7954	2.7000e-004		14.8021
Total	**8.2500e-003**	**0.1056**	**0.0812**	**4.1000e-004**	**0.0220**	**3.3000e-004**	**0.0224**	**6.0200e-003**	**3.1000e-004**	**6.3300e-003**		**43.8555**	**43.8555**	**2.7400e-003**		**43.9239**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.3430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**8.5619**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.3430					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**8.5619**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

KIPP Esperanza High School

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	253.00	Student	0.10	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Plan Set

Construction Phase - Anticpiated construction schedule

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - Per Traffic Analysis

Construction Off-road Equipment Mitigation - BAAQMD Rule Compliance

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	25.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	8.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	2.00
tblLandUse	LandUseSquareFeet	33,563.23	4,000.00
tblLandUse	LotAcreage	0.77	0.10
tblVehicleEF	HHD	0.23	0.03
tblVehicleEF	HHD	0.25	0.17
tblVehicleEF	HHD	0.07	2.9456e-006
tblVehicleEF	HHD	1.96	4.86
tblVehicleEF	HHD	2.66	1.00
tblVehicleEF	HHD	9.75	0.03
tblVehicleEF	HHD	3,053.65	986.47
tblVehicleEF	HHD	1,854.54	1,722.89
tblVehicleEF	HHD	30.51	0.24
tblVehicleEF	HHD	18.40	5.83
tblVehicleEF	HHD	4.42	4.02
tblVehicleEF	HHD	16.88	2.10
tblVehicleEF	HHD	0.03	5.0232e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.03

tblVehicleEF	HHD	3.0100e-004	1.5597e-006
tblVehicleEF	HHD	0.02	4.8059e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.4830e-003	8.6929e-003
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.7700e-004	1.4341e-006
tblVehicleEF	HHD	1.6000e-004	3.3389e-006
tblVehicleEF	HHD	0.01	1.6270e-004
tblVehicleEF	HHD	0.46	0.36
tblVehicleEF	HHD	1.1800e-004	2.2251e-006
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	1.3440e-003	7.6290e-004
tblVehicleEF	HHD	0.23	1.5402e-005
tblVehicleEF	HHD	0.03	8.8511e-003
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	4.6500e-004	2.3675e-006
tblVehicleEF	HHD	1.6000e-004	3.3389e-006
tblVehicleEF	HHD	0.01	1.6270e-004
tblVehicleEF	HHD	0.55	0.42
tblVehicleEF	HHD	1.1800e-004	2.2251e-006
tblVehicleEF	HHD	0.41	0.27
tblVehicleEF	HHD	1.3440e-003	7.6290e-004
tblVehicleEF	HHD	0.25	1.6864e-005
tblVehicleEF	HHD	0.22	0.03
tblVehicleEF	HHD	0.25	0.17
tblVehicleEF	HHD	0.07	2.7390e-006
tblVehicleEF	HHD	1.43	4.73
tblVehicleEF	HHD	2.72	1.00
tblVehicleEF	HHD	8.92	0.03
tblVehicleEF	HHD	3,234.90	988.66

tblVehicleEF	HHD	1,854.54	1,722.90
tblVehicleEF	HHD	30.51	0.23
tblVehicleEF	HHD	18.99	5.73
tblVehicleEF	HHD	4.25	3.87
tblVehicleEF	HHD	16.83	2.10
tblVehicleEF	HHD	0.02	4.3274e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	3.0100e-004	1.5597e-006
tblVehicleEF	HHD	0.02	4.1402e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.4830e-003	8.6929e-003
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.7700e-004	1.4341e-006
tblVehicleEF	HHD	3.8600e-004	8.5253e-006
tblVehicleEF	HHD	0.01	1.7767e-004
tblVehicleEF	HHD	0.43	0.37
tblVehicleEF	HHD	2.0700e-004	4.1975e-006
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	1.2790e-003	7.3524e-004
tblVehicleEF	HHD	0.21	1.4389e-005
tblVehicleEF	HHD	0.03	8.8692e-003
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	4.5200e-004	2.3242e-006
tblVehicleEF	HHD	3.8600e-004	8.5253e-006
tblVehicleEF	HHD	0.01	1.7767e-004
tblVehicleEF	HHD	0.52	0.44
tblVehicleEF	HHD	2.0700e-004	4.1975e-006
tblVehicleEF	HHD	0.41	0.27

tblVehicleEF	HHD	1.2790e-003	7.3524e-004
tblVehicleEF	HHD	0.23	1.5754e-005
tblVehicleEF	HHD	0.25	0.03
tblVehicleEF	HHD	0.25	0.17
tblVehicleEF	HHD	0.08	3.0911e-006
tblVehicleEF	HHD	2.70	5.05
tblVehicleEF	HHD	2.63	1.00
tblVehicleEF	HHD	10.41	0.03
tblVehicleEF	HHD	2,803.35	983.46
tblVehicleEF	HHD	1,854.54	1,722.89
tblVehicleEF	HHD	30.51	0.24
tblVehicleEF	HHD	17.58	5.98
tblVehicleEF	HHD	4.50	4.08
tblVehicleEF	HHD	16.92	2.10
tblVehicleEF	HHD	0.03	5.9840e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	3.0100e-004	1.5597e-006
tblVehicleEF	HHD	0.03	5.7251e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.4830e-003	8.6929e-003
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.7700e-004	1.4341e-006
tblVehicleEF	HHD	1.0100e-004	1.9315e-006
tblVehicleEF	HHD	0.01	1.7108e-004
tblVehicleEF	HHD	0.49	0.34
tblVehicleEF	HHD	5.0000e-005	8.9216e-007
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	1.5030e-003	8.6367e-004

tblVehicleEF	HHD	0.24	1.6114e-005
tblVehicleEF	HHD	0.02	8.8261e-003
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	4.7600e-004	2.4018e-006
tblVehicleEF	HHD	1.0100e-004	1.9315e-006
tblVehicleEF	HHD	0.01	1.7108e-004
tblVehicleEF	HHD	0.60	0.40
tblVehicleEF	HHD	5.0000e-005	8.9216e-007
tblVehicleEF	HHD	0.41	0.27
tblVehicleEF	HHD	1.5030e-003	8.6367e-004
tblVehicleEF	HHD	0.26	1.7643e-005
tblVehicleEF	LDA	3.4610e-003	2.0275e-003
tblVehicleEF	LDA	5.7140e-003	0.05
tblVehicleEF	LDA	0.49	0.56
tblVehicleEF	LDA	1.25	2.27
tblVehicleEF	LDA	237.19	246.96
tblVehicleEF	LDA	56.25	52.49
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.07	0.19
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.6610e-003	1.3714e-003
tblVehicleEF	LDA	2.2680e-003	1.8150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	1.5310e-003	1.2633e-003
tblVehicleEF	LDA	2.0860e-003	1.6689e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.03	0.03

tblVehicleEF	LDA	8.7340e-003	7.9905e-003
tblVehicleEF	LDA	0.05	0.21
tblVehicleEF	LDA	0.08	0.23
tblVehicleEF	LDA	2.3740e-003	2.4429e-003
tblVehicleEF	LDA	5.8400e-004	5.1948e-004
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.05	0.21
tblVehicleEF	LDA	0.08	0.25
tblVehicleEF	LDA	3.7710e-003	2.2467e-003
tblVehicleEF	LDA	4.7940e-003	0.04
tblVehicleEF	LDA	0.56	0.64
tblVehicleEF	LDA	0.99	1.79
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tblVehicleEF	LDA	56.25	51.60
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.06	0.16
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.6610e-003	1.3714e-003
tblVehicleEF	LDA	2.2680e-003	1.8150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	1.5310e-003	1.2633e-003
tblVehicleEF	LDA	2.0860e-003	1.6689e-003
tblVehicleEF	LDA	0.07	0.08
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.06

tblVehicleEF	LDA	9.5020e-003	8.7060e-003
tblVehicleEF	LDA	0.04	0.19
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.5260e-003	2.5949e-003
tblVehicleEF	LDA	5.7900e-004	5.1063e-004
tblVehicleEF	LDA	0.07	0.08
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.19
tblVehicleEF	LDA	0.07	0.21
tblVehicleEF	LDA	3.4070e-003	1.9707e-003
tblVehicleEF	LDA	6.3700e-003	0.06
tblVehicleEF	LDA	0.49	0.56
tblVehicleEF	LDA	1.43	2.61
tblVehicleEF	LDA	236.26	246.02
tblVehicleEF	LDA	56.25	53.12
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.08	0.20
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	1.6610e-003	1.3714e-003
tblVehicleEF	LDA	2.2680e-003	1.8150e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	1.5310e-003	1.2633e-003
tblVehicleEF	LDA	2.0860e-003	1.6689e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.01	0.02

tblVehicleEF	LDA	8.6040e-003	7.8545e-003
tblVehicleEF	LDA	0.05	0.24
tblVehicleEF	LDA	0.09	0.26
tblVehicleEF	LDA	2.3650e-003	2.4336e-003
tblVehicleEF	LDA	5.8700e-004	5.2565e-004
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.05	0.24
tblVehicleEF	LDA	0.09	0.28
tblVehicleEF	LDT1	5.4990e-003	3.2789e-003
tblVehicleEF	LDT1	8.7030e-003	0.06
tblVehicleEF	LDT1	0.72	0.78
tblVehicleEF	LDT1	1.87	2.37
tblVehicleEF	LDT1	288.82	287.63
tblVehicleEF	LDT1	67.38	61.36
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.10	0.21
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.9400e-003	1.7528e-003
tblVehicleEF	LDT1	2.7630e-003	2.2596e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.7850e-003	1.6128e-003
tblVehicleEF	LDT1	2.5410e-003	2.0777e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.14	0.12
tblVehicleEF	LDT1	0.04	0.00

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.12	0.45
tblVehicleEF	LDT1	0.12	0.27
tblVehicleEF	LDT1	2.8950e-003	2.8463e-003
tblVehicleEF	LDT1	7.0600e-004	6.0720e-004
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.14	0.12
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.12	0.45
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tblVehicleEF	LDT1	5.9430e-003	3.5976e-003
tblVehicleEF	LDT1	7.2520e-003	0.05
tblVehicleEF	LDT1	0.81	0.88
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tblVehicleEF	LDT1	67.38	60.40
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.09	0.19
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.9400e-003	1.7528e-003
tblVehicleEF	LDT1	2.7630e-003	2.2596e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.7850e-003	1.6128e-003
tblVehicleEF	LDT1	2.5410e-003	2.0777e-003
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.15	0.13
tblVehicleEF	LDT1	0.07	0.00

tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.11	0.40
tblVehicleEF	LDT1	0.10	0.23
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tblVehicleEF	LDT1	6.9900e-004	5.9775e-004
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.15	0.13
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.40
tblVehicleEF	LDT1	0.11	0.25
tblVehicleEF	LDT1	5.4390e-003	3.2013e-003
tblVehicleEF	LDT1	9.7400e-003	0.06
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tblVehicleEF	LDT1	67.38	62.03
tblVehicleEF	LDT1	0.08	0.07
tblVehicleEF	LDT1	0.11	0.23
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.9400e-003	1.7528e-003
tblVehicleEF	LDT1	2.7630e-003	2.2596e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.7850e-003	1.6128e-003
tblVehicleEF	LDT1	2.5410e-003	2.0777e-003
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.13
tblVehicleEF	LDT1	0.02	0.00

tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.14	0.55
tblVehicleEF	LDT1	0.13	0.31
tblVehicleEF	LDT1	2.8840e-003	2.8370e-003
tblVehicleEF	LDT1	7.1100e-004	6.1381e-004
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.16	0.13
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.14	0.55
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tblVehicleEF	LDT2	0.09	0.25
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.02	0.04
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.03	0.04

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.31
tblVehicleEF	LDT2	0.07	0.28
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tblVehicleEF	LDT2	7.8700e-004	6.5169e-004
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tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.31
tblVehicleEF	LDT2	0.08	0.31
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tblVehicleEF	LDT2	0.08	0.22
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tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
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tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.05	0.07

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.28
tblVehicleEF	LDT2	0.06	0.24
tblVehicleEF	LDT2	3.5180e-003	3.1748e-003
tblVehicleEF	LDT2	7.8300e-004	6.4089e-004
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.05	0.28
tblVehicleEF	LDT2	0.07	0.26
tblVehicleEF	LDT2	4.1560e-003	2.5728e-003
tblVehicleEF	LDT2	6.0580e-003	0.07
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tblVehicleEF	LDT2	1.41	3.19
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tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.27
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.6700e-003	1.4793e-003
tblVehicleEF	LDT2	2.3320e-003	1.8727e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.5360e-003	1.3616e-003
tblVehicleEF	LDT2	2.1440e-003	1.7219e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.01	0.02

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.38
tblVehicleEF	LDT2	0.08	0.32
tblVehicleEF	LDT2	3.2990e-003	3.0189e-003
tblVehicleEF	LDT2	7.9000e-004	6.5926e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.07	0.38
tblVehicleEF	LDT2	0.09	0.35
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tblVehicleEF	LHD1	0.01	7.2237e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.19
tblVehicleEF	LHD1	0.85	0.62
tblVehicleEF	LHD1	2.39	1.08
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.65
tblVehicleEF	LHD1	31.29	12.03
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.81	0.52
tblVehicleEF	LHD1	0.90	0.31
tblVehicleEF	LHD1	8.9500e-004	7.9702e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
tblVehicleEF	LHD1	0.01	8.2509e-003
tblVehicleEF	LHD1	8.6500e-004	2.4802e-004
tblVehicleEF	LHD1	8.5600e-004	7.6254e-004
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
tblVehicleEF	LHD1	0.01	7.8456e-003
tblVehicleEF	LHD1	7.9500e-004	2.2805e-004
tblVehicleEF	LHD1	1.7290e-003	1.2873e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0790e-003	7.9652e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.27	0.41
tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.0000e-005	8.5824e-005
tblVehicleEF	LHD1	6.6520e-003	7.7838e-003
tblVehicleEF	LHD1	3.5700e-004	1.1905e-004
tblVehicleEF	LHD1	1.7290e-003	1.2873e-003
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tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.0790e-003	7.9652e-004
tblVehicleEF	LHD1	0.13	0.10
tblVehicleEF	LHD1	0.27	0.41
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	5.2400e-003	5.3146e-003
tblVehicleEF	LHD1	0.02	7.3997e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.19
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tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.68
tblVehicleEF	LHD1	31.29	11.89
tblVehicleEF	LHD1	0.08	0.05

tblVehicleEF	LHD1	0.77	0.50
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tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
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tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
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tblVehicleEF	LHD1	0.02	0.02
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tblVehicleEF	LHD1	0.23	0.07
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tblVehicleEF	LHD1	0.02	0.01
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tblVehicleEF	LHD1	2.55	1.15
tblVehicleEF	LHD1	8.99	8.84
tblVehicleEF	LHD1	678.51	796.63
tblVehicleEF	LHD1	31.29	12.15
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.83	0.53
tblVehicleEF	LHD1	0.94	0.32
tblVehicleEF	LHD1	8.9500e-004	7.9702e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	9.6981e-003
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tblVehicleEF	LHD1	8.6500e-004	2.4802e-004
tblVehicleEF	LHD1	8.5600e-004	7.6254e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5420e-003	2.4245e-003
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tblVehicleEF	LHD1	0.02	0.02
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tblVehicleEF	LHD1	4.6300e-004	3.3582e-004
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tblVehicleEF	LHD2	6.9280e-003	6.3016e-003
tblVehicleEF	LHD2	6.2800e-003	8.1371e-003
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tblVehicleEF	LHD2	0.48	0.52
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tblVehicleEF	LHD2	1.1890e-003	1.2958e-003
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.5600e-004	4.6599e-004
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
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tblVehicleEF	LHD2	0.02	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.5600e-004	4.6599e-004
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tblVehicleEF	LHD2	0.06	0.25
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tblVehicleEF	LHD2	0.01	0.01
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tblVehicleEF	LHD2	0.06	0.24
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tblVehicleEF	LHD2	6.0800e-004	8.0139e-004
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	0.06	0.24
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	3.5260e-003	3.3476e-003
tblVehicleEF	LHD2	6.8620e-003	6.2500e-003
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tblVehicleEF	LHD2	3.7900e-004	1.2712e-004
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tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
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tblVehicleEF	LHD2	0.10	0.10
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tblVehicleEF	LHD2	0.09	0.04
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tblVehicleEF	LHD2	0.03	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5400e-004	2.0034e-004
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tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
tblVehicleEF	MCY	3.8420e-003	3.3369e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
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tblVehicleEF	MCY	0.53	0.57
tblVehicleEF	MCY	0.36	0.38
tblVehicleEF	MCY	2.19	2.21
tblVehicleEF	MCY	0.46	1.99
tblVehicleEF	MCY	2.20	1.97
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tblVehicleEF	MCY	0.60	0.62

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tblVehicleEF	MCY	0.36	0.38
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tblVehicleEF	MCY	43.86	57.62
tblVehicleEF	MCY	1.01	1.02
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
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tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
tblVehicleEF	MCY	3.6130e-003	3.1380e-003
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tblVehicleEF	MCY	2.10	2.12
tblVehicleEF	MCY	0.42	1.81
tblVehicleEF	MCY	1.85	1.63
tblVehicleEF	MCY	2.0740e-003	2.0867e-003
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tblVehicleEF	MCY	1.80	1.85

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tblVehicleEF	MCY	0.89	0.92
tblVehicleEF	MCY	2.63	2.64
tblVehicleEF	MCY	0.42	1.81
tblVehicleEF	MCY	2.01	1.77
tblVehicleEF	MCY	0.47	0.34
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.96	20.37
tblVehicleEF	MCY	11.66	10.37
tblVehicleEF	MCY	172.56	215.51
tblVehicleEF	MCY	43.86	63.62
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tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.0670e-003	2.0936e-003
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tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	1.9310e-003	1.9560e-003
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tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.78	0.69
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tblVehicleEF	MDV	436.04	368.66
tblVehicleEF	MDV	99.57	78.55
tblVehicleEF	MDV	0.09	0.06
tblVehicleEF	MDV	0.17	0.29
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.7520e-003	1.5529e-003
tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
tblVehicleEF	MDV	2.2280e-003	1.8200e-003
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.33
tblVehicleEF	MDV	0.15	0.34
tblVehicleEF	MDV	4.3610e-003	3.6435e-003
tblVehicleEF	MDV	1.0320e-003	7.7730e-004
tblVehicleEF	MDV	0.04	0.04

tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.04	0.05
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.09	0.33
tblVehicleEF	MDV	0.17	0.37
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tblVehicleEF	MDV	99.57	77.32
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.15	0.25
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.7520e-003	1.5529e-003
tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
tblVehicleEF	MDV	2.2280e-003	1.8200e-003
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.30
tblVehicleEF	MDV	0.13	0.28
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tblVehicleEF	MDV	0.09	0.11

tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.08	0.30
tblVehicleEF	MDV	0.14	0.31
tblVehicleEF	MDV	6.6080e-003	2.8209e-003
tblVehicleEF	MDV	0.01	0.08
tblVehicleEF	MDV	0.78	0.69
tblVehicleEF	MDV	2.44	3.50
tblVehicleEF	MDV	434.42	367.76
tblVehicleEF	MDV	99.57	79.41
tblVehicleEF	MDV	0.10	0.06
tblVehicleEF	MDV	0.19	0.31
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.7520e-003	1.5529e-003
tblVehicleEF	MDV	2.4230e-003	1.9793e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.6140e-003	1.4319e-003
tblVehicleEF	MDV	2.2280e-003	1.8200e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.40
tblVehicleEF	MDV	0.17	0.38
tblVehicleEF	MDV	4.3450e-003	3.6346e-003
tblVehicleEF	MDV	1.0380e-003	7.8579e-004
tblVehicleEF	MDV	0.02	0.03

tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.10	0.40
tblVehicleEF	MDV	0.19	0.41
tblVehicleEF	MH	0.02	7.8208e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.21	0.73
tblVehicleEF	MH	4.74	2.03
tblVehicleEF	MH	1,195.82	1,502.52
tblVehicleEF	MH	57.35	18.02
tblVehicleEF	MH	0.95	1.03
tblVehicleEF	MH	0.67	0.24
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.0110e-003	2.7091e-004
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2240e-003	3.2732e-003
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.3000e-004	2.4909e-004
tblVehicleEF	MH	0.39	0.38
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.17	0.16
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.91
tblVehicleEF	MH	0.27	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.5600e-004	1.7829e-004
tblVehicleEF	MH	0.39	0.38

tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.17	0.16
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.01	0.91
tblVehicleEF	MH	0.29	0.10
tblVehicleEF	MH	0.02	8.0784e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.27	0.76
tblVehicleEF	MH	4.35	1.87
tblVehicleEF	MH	1,195.82	1,502.57
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tblVehicleEF	MH	0.01	0.02
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tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2240e-003	3.2732e-003
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tblVehicleEF	MH	0.30	0.28
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tblVehicleEF	MH	0.01	0.01
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tblVehicleEF	MH	0.94	0.89

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tblVehicleEF	MH	0.30	0.28
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.01	0.88
tblVehicleEF	MH	0.27	0.09
tblVehicleEF	MH	0.02	7.6594e-003
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tblVehicleEF	MH	0.01	0.01
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tblVehicleEF	MH	3.2240e-003	3.2732e-003
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tblVehicleEF	MH	0.06	0.06
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tblVehicleEF	MH	0.01	0.98
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tblVehicleEF	MH	0.05	0.04
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tblVehicleEF	MHD	0.01	0.01
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tblVehicleEF	MHD	6.4100e-004	3.4282e-004
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tblVehicleEF	MHD	0.03	0.02

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tblVehicleEF	MHD	0.35	0.06
tblVehicleEF	MHD	1.3220e-003	6.4776e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0800e-004	1.0221e-004
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tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.0000e-004	2.1307e-004
tblVehicleEF	MHD	0.06	0.08
tblVehicleEF	MHD	0.02	0.12
tblVehicleEF	MHD	0.38	0.06
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tblVehicleEF	MHD	0.27	0.31
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tblVehicleEF	MHD	5.7700e-004	8.3998e-004
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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	5.5510e-003	0.03

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tblVehicleEF	MHD	5.3040e-003	0.03
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tblVehicleEF	MHD	5.5510e-003	0.03
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tblVehicleEF	MHD	3.0000e-003	3.0000e-003
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tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005

tblVehicleEF	SBUS	6.3500e-003	1.3448e-003
tblVehicleEF	SBUS	0.03	7.4355e-003
tblVehicleEF	SBUS	1.51	0.35
tblVehicleEF	SBUS	2.4280e-003	4.6962e-004
tblVehicleEF	SBUS	0.09	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.54	0.04
tblVehicleEF	SBUS	9.1060e-003	3.5373e-003
tblVehicleEF	SBUS	8.5830e-003	9.8657e-003
tblVehicleEF	SBUS	1.0230e-003	5.6917e-005
tblVehicleEF	SBUS	6.3500e-003	1.3448e-003
tblVehicleEF	SBUS	0.03	7.4355e-003
tblVehicleEF	SBUS	2.20	0.51
tblVehicleEF	SBUS	2.4280e-003	4.6962e-004
tblVehicleEF	SBUS	0.11	0.14
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.60	0.04
tblVehicleEF	SBUS	0.86	0.08
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.07	9.0582e-003
tblVehicleEF	SBUS	12.65	3.04
tblVehicleEF	SBUS	1.01	0.98
tblVehicleEF	SBUS	15.76	1.54
tblVehicleEF	SBUS	842.84	345.20
tblVehicleEF	SBUS	878.86	1,028.41
tblVehicleEF	SBUS	85.02	6.69
tblVehicleEF	SBUS	4.82	3.40
tblVehicleEF	SBUS	2.47	5.34
tblVehicleEF	SBUS	7.22	0.62
tblVehicleEF	SBUS	6.0950e-003	5.5675e-003

tblVehicleEF	SBUS	0.74	0.74
tblVehicleEF	SBUS	9.4470e-003	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.6050e-003	9.6268e-005
tblVehicleEF	SBUS	5.8310e-003	5.3266e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.3620e-003	2.5995e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	1.4750e-003	8.8515e-005
tblVehicleEF	SBUS	1.7180e-003	3.3307e-004
tblVehicleEF	SBUS	0.03	7.7767e-003
tblVehicleEF	SBUS	1.52	0.36
tblVehicleEF	SBUS	5.1100e-004	9.2593e-005
tblVehicleEF	SBUS	0.08	0.11
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.70	0.05
tblVehicleEF	SBUS	8.4830e-003	3.2962e-003
tblVehicleEF	SBUS	8.5820e-003	9.8649e-003
tblVehicleEF	SBUS	1.1190e-003	6.6174e-005
tblVehicleEF	SBUS	1.7180e-003	3.3307e-004
tblVehicleEF	SBUS	0.03	7.7767e-003
tblVehicleEF	SBUS	2.21	0.51
tblVehicleEF	SBUS	5.1100e-004	9.2593e-005
tblVehicleEF	SBUS	0.11	0.13
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.77	0.06
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	4.08	5.26
tblVehicleEF	UBUS	6.72	0.82

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.26
tblVehicleEF	UBUS	7.60	3.45
tblVehicleEF	UBUS	15.38	0.09
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	1.3920e-003	3.7604e-004
tblVehicleEF	UBUS	0.03	6.3665e-003
tblVehicleEF	UBUS	8.3200e-004	2.8251e-004
tblVehicleEF	UBUS	0.41	0.01
tblVehicleEF	UBUS	7.3160e-003	0.04
tblVehicleEF	UBUS	0.50	0.06
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0260e-003	9.1607e-005
tblVehicleEF	UBUS	1.3920e-003	3.7604e-004
tblVehicleEF	UBUS	0.03	6.3665e-003
tblVehicleEF	UBUS	8.3200e-004	2.8251e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	7.3160e-003	0.04
tblVehicleEF	UBUS	0.55	0.06
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.03	0.01
tblVehicleEF	UBUS	4.11	5.26
tblVehicleEF	UBUS	5.43	0.67

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.00
tblVehicleEF	UBUS	7.30	3.45
tblVehicleEF	UBUS	15.32	0.09
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	3.4750e-003	8.8238e-004
tblVehicleEF	UBUS	0.03	6.8060e-003
tblVehicleEF	UBUS	1.5010e-003	4.8157e-004
tblVehicleEF	UBUS	0.42	0.01
tblVehicleEF	UBUS	6.5190e-003	0.04
tblVehicleEF	UBUS	0.44	0.05
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0040e-003	8.9024e-005
tblVehicleEF	UBUS	3.4750e-003	8.8238e-004
tblVehicleEF	UBUS	0.03	6.8060e-003
tblVehicleEF	UBUS	1.5010e-003	4.8157e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	6.5190e-003	0.04
tblVehicleEF	UBUS	0.48	0.05
tblVehicleEF	UBUS	0.28	0.84
tblVehicleEF	UBUS	0.04	0.01
tblVehicleEF	UBUS	4.06	5.26
tblVehicleEF	UBUS	7.77	0.95

tblVehicleEF	UBUS	2,080.07	1,802.99
tblVehicleEF	UBUS	90.56	9.47
tblVehicleEF	UBUS	7.72	3.45
tblVehicleEF	UBUS	15.42	0.10
tblVehicleEF	UBUS	0.63	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.14	7.7552e-003
tblVehicleEF	UBUS	9.5500e-004	4.9801e-005
tblVehicleEF	UBUS	0.27	0.03
tblVehicleEF	UBUS	3.0000e-003	7.8008e-003
tblVehicleEF	UBUS	0.14	7.4183e-003
tblVehicleEF	UBUS	8.7800e-004	4.5790e-005
tblVehicleEF	UBUS	8.7700e-004	2.7362e-004
tblVehicleEF	UBUS	0.03	6.6466e-003
tblVehicleEF	UBUS	3.0800e-004	1.2138e-004
tblVehicleEF	UBUS	0.41	0.01
tblVehicleEF	UBUS	9.0070e-003	0.05
tblVehicleEF	UBUS	0.54	0.06
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.0440e-003	9.3684e-005
tblVehicleEF	UBUS	8.7700e-004	2.7362e-004
tblVehicleEF	UBUS	0.03	6.6466e-003
tblVehicleEF	UBUS	3.0800e-004	1.2138e-004
tblVehicleEF	UBUS	0.73	0.86
tblVehicleEF	UBUS	9.0070e-003	0.05
tblVehicleEF	UBUS	0.60	0.07
tblVehicleTrips	ST_TR	0.61	0.00
tblVehicleTrips	SU_TR	0.25	0.00
tblVehicleTrips	WD_TR	1.71	4.20

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0451	0.2344	0.2282	3.9000e-004	0.0112	0.0124	0.0235	3.1700e-003	0.0115	0.0147	0.0000	34.1170	34.1170	8.6600e-003	0.0000	34.3336
Maximum	**0.0451**	**0.2344**	**0.2282**	**3.9000e-004**	**0.0112**	**0.0124**	**0.0235**	**3.1700e-003**	**0.0115**	**0.0147**	**0.0000**	**34.1170**	**34.1170**	**8.6600e-003**	**0.0000**	**34.3336**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0451	0.2344	0.2282	3.9000e-004	6.1400e-003	0.0124	0.0185	1.7300e-003	0.0115	0.0132	0.0000	34.1170	34.1170	8.6600e-003	0.0000	34.3336
Maximum	**0.0451**	**0.2344**	**0.2282**	**3.9000e-004**	**6.1400e-003**	**0.0124**	**0.0185**	**1.7300e-003**	**0.0115**	**0.0132**	**0.0000**	**34.1170**	**34.1170**	**8.6600e-003**	**0.0000**	**34.3336**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**44.93**	**0.00**	**21.32**	**45.43**	**0.00**	**9.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

1	**6-1-2021**	**8-31-2021**	0.2791	0.2791
		Highest	0.2791	0.2791

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	6/7/2021	5	5	
2	Site Preparation	Site Preparation	6/8/2021	6/9/2021	5	2	
3	Grading	Grading	6/10/2021	6/21/2021	5	8	
4	Paving	Paving	6/22/2021	7/19/2021	5	20	
5	Building Construction	Building Construction	7/20/2021	8/23/2021	5	25	
6	Architectural Coating	Architectural Coating	7/21/2021	7/27/2021	5	5	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,000; Non-Residential Outdoor: 2,000; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	46.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.9800e-003	0.0000	4.9800e-003	7.5000e-004	0.0000	7.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9900e-003	0.0181	0.0189	3.0000e-005		1.0200e-003	1.0200e-003		9.7000e-004	9.7000e-004	0.0000	2.6023	2.6023	4.8000e-004	0.0000	2.6145
Total	**1.9900e-003**	**0.0181**	**0.0189**	**3.0000e-005**	**4.9800e-003**	**1.0200e-003**	**6.0000e-003**	**7.5000e-004**	**9.7000e-004**	**1.7200e-003**	**0.0000**	**2.6023**	**2.6023**	**4.8000e-004**	**0.0000**	**2.6145**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-004	6.8400e-003	3.2000e-003	2.0000e-005	3.8000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.8891	1.8891	2.4000e-004	0.0000	1.8951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1581	0.1581	0.0000	0.0000	0.1581
Total	**2.5000e-004**	**6.8800e-003**	**3.6500e-003**	**2.0000e-005**	**5.8000e-004**	**2.0000e-005**	**6.1000e-004**	**1.6000e-004**	**2.0000e-005**	**1.8000e-004**	**0.0000**	**2.0471**	**2.0471**	**2.4000e-004**	**0.0000**	**2.0532**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1300e-003	0.0000	2.1300e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	1.9900e-003	0.0181	0.0189	3.0000e-005		1.0200e-003	1.0200e-003		9.7000e-004	9.7000e-004	0.0000	2.6023	2.6023	4.8000e-004	0.0000	2.6145
Total	**1.9900e-003**	**0.0181**	**0.0189**	**3.0000e-005**	**2.1300e-003**	**1.0200e-003**	**3.1500e-003**	**3.2000e-004**	**9.7000e-004**	**1.2900e-003**	**0.0000**	**2.6023**	**2.6023**	**4.8000e-004**	**0.0000**	**2.6145**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-004	6.8400e-003	3.2000e-003	2.0000e-005	3.7000e-004	2.0000e-005	3.9000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.8891	1.8891	2.4000e-004	0.0000	1.8951
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1581	0.1581	0.0000	0.0000	0.1581
Total	**2.5000e-004**	**6.8800e-003**	**3.6500e-003**	**2.0000e-005**	**5.6000e-004**	**2.0000e-005**	**5.8000e-004**	**1.5000e-004**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**2.0471**	**2.0471**	**2.4000e-004**	**0.0000**	**2.0532**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620
Total	**6.4000e-004**	**7.8200e-003**	**4.0300e-003**	**1.0000e-005**	**5.3000e-004**	**3.0000e-004**	**8.3000e-004**	**6.0000e-005**	**2.8000e-004**	**3.4000e-004**	**0.0000**	**0.8551**	**0.8551**	**2.8000e-004**	**0.0000**	**0.8620**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0316	0.0316	0.0000	0.0000	0.0316
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0316**	**0.0316**	**0.0000**	**0.0000**	**0.0316**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3000e-004	0.0000	2.3000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	7.8200e-003	4.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.8551	0.8551	2.8000e-004	0.0000	0.8620
Total	**6.4000e-004**	**7.8200e-003**	**4.0300e-003**	**1.0000e-005**	**2.3000e-004**	**3.0000e-004**	**5.3000e-004**	**2.0000e-005**	**2.8000e-004**	**3.0000e-004**	**0.0000**	**0.8551**	**0.8551**	**2.8000e-004**	**0.0000**	**0.8620**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0316	0.0316	0.0000	0.0000	0.0316
Total	**1.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0316**	**0.0316**	**0.0000**	**0.0000**	**0.0316**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0100e-003	0.0000	3.0100e-003	1.6600e-003	0.0000	1.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1900e-003	0.0290	0.0303	5.0000e-005		1.6300e-003	1.6300e-003		1.5500e-003	1.5500e-003	0.0000	4.1637	4.1637	7.8000e-004	0.0000	4.1831
Total	**3.1900e-003**	**0.0290**	**0.0303**	**5.0000e-005**	**3.0100e-003**	**1.6300e-003**	**4.6400e-003**	**1.6600e-003**	**1.5500e-003**	**3.2100e-003**	**0.0000**	**4.1637**	**4.1637**	**7.8000e-004**	**0.0000**	**4.1831**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	1.0000e-004	7.0000e-005	7.2000e-004	0.0000	3.1000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2529	0.2529	0.0000	0.0000	0.2530
Total	**1.0000e-004**	**7.0000e-005**	**7.2000e-004**	**0.0000**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2529**	**0.2529**	**0.0000**	**0.0000**	**0.2530**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2900e-003	0.0000	1.2900e-003	7.1000e-004	0.0000	7.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1900e-003	0.0290	0.0303	5.0000e-005		1.6300e-003	1.6300e-003		1.5500e-003	1.5500e-003	0.0000	4.1637	4.1637	7.8000e-004	0.0000	4.1831
Total	**3.1900e-003**	**0.0290**	**0.0303**	**5.0000e-005**	**1.2900e-003**	**1.6300e-003**	**2.9200e-003**	**7.1000e-004**	**1.5500e-003**	**2.2600e-003**	**0.0000**	**4.1637**	**4.1637**	**7.8000e-004**	**0.0000**	**4.1831**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	7.2000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2529	0.2529	0.0000	0.0000	0.2530
Total	**1.0000e-004**	**7.0000e-005**	**7.2000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2529**	**0.2529**	**0.0000**	**0.0000**	**0.2530**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2100e-003	0.0672	0.0709	1.1000e-004		3.5300e-003	3.5300e-003		3.2900e-003	3.2900e-003	0.0000	9.3925	9.3925	2.7400e-003	0.0000	9.4609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.2100e-003**	**0.0672**	**0.0709**	**1.1000e-004**		**3.5300e-003**	**3.5300e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**9.3925**	**9.3925**	**2.7400e-003**	**0.0000**	**9.4609**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.2300e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1380	1.1380	2.0000e-005	0.0000	1.1385
Total	**4.6000e-004**	**3.0000e-004**	**3.2300e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1380**	**1.1380**	**2.0000e-005**	**0.0000**	**1.1385**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	7.2100e-003	0.0672	0.0709	1.1000e-004		3.5300e-003	3.5300e-003		3.2900e-003	3.2900e-003	0.0000	9.3925	9.3925	2.7400e-003	0.0000	9.4609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.2100e-003**	**0.0672**	**0.0709**	**1.1000e-004**		**3.5300e-003**	**3.5300e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**9.3925**	**9.3925**	**2.7400e-003**	**0.0000**	**9.4609**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.2300e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1380	1.1380	2.0000e-005	0.0000	1.1385
Total	**4.6000e-004**	**3.0000e-004**	**3.2300e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.1380**	**1.1380**	**2.0000e-005**	**0.0000**	**1.1385**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.6900e-003	0.0998	0.0908	1.4000e-004		5.5900e-003	5.5900e-003		5.1500e-003	5.1500e-003	0.0000	12.5103	12.5103	4.0500e-003	0.0000	12.6114
Total	**9.6900e-003**	**0.0998**	**0.0908**	**1.4000e-004**		**5.5900e-003**	**5.5900e-003**		**5.1500e-003**	**5.1500e-003**	**0.0000**	**12.5103**	**12.5103**	**4.0500e-003**	**0.0000**	**12.6114**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.3000e-003	5.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3271	0.3271	3.0000e-005	0.0000	0.3278
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1581	0.1581	0.0000	0.0000	0.1581
Total	**1.0000e-004**	**1.3400e-003**	**1.0100e-003**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.4852**	**0.4852**	**3.0000e-005**	**0.0000**	**0.4860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.6900e-003	0.0998	0.0908	1.4000e-004		5.5900e-003	5.5900e-003		5.1500e-003	5.1500e-003	0.0000	12.5102	12.5102	4.0500e-003	0.0000	12.6114
Total	**9.6900e-003**	**0.0998**	**0.0908**	**1.4000e-004**		**5.5900e-003**	**5.5900e-003**		**5.1500e-003**	**5.1500e-003**	**0.0000**	**12.5102**	**12.5102**	**4.0500e-003**	**0.0000**	**12.6114**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.3000e-003	5.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3271	0.3271	3.0000e-005	0.0000	0.3278
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1581	0.1581	0.0000	0.0000	0.1581
Total	**1.0000e-004**	**1.3400e-003**	**1.0100e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.4852**	**0.4852**	**3.0000e-005**	**0.0000**	**0.4860**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0214**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0214**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

KIPP Esperanza High School - San Mateo County, Winter

KIPP Esperanza High School

San Mateo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	650.00	Student	1.98	86,229.64	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on 2020 PG&E CRSR Report

Land Use -

Construction Phase - Operational only phase

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - Per Traffic Analysis

Woodstoves -

Energy Use -

Construction Off-road Equipment Mitigation - Operational only run

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	200.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	4.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	AcresOfGrading	0.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblVehicleTrips	ST_TR	0.61	2.90
tblVehicleTrips	SU_TR	0.25	2.90
tblVehicleTrips	WD_TR	1.71	2.90

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

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

Category	lb/day										lb/day					
Area	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Energy	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Mobile	2.5561	8.2109	31.1394	0.1061	10.4835	0.0888	10.5723	2.8073	0.0829	2.8902		10,700.4038	10,700.4038	0.3897		10,710.1455
Total	**4.6959**	**8.5930**	**31.5263**	**0.1084**	**10.4835**	**0.1180**	**10.6015**	**2.8073**	**0.1121**	**2.9194**		**11,158.3066**	**11,158.3066**	**0.3988**	**8.3900e-003**	**11,170.7780**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Energy	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Mobile	2.4991	7.9284	29.9468	0.1007	9.9387	0.0847	10.0234	2.6614	0.0791	2.7405		10,163.7250	10,163.7250	0.3723		10,173.0331
Total	**4.6390**	**8.3105**	**30.3337**	**0.1030**	**9.9387**	**0.1139**	**10.0526**	**2.6614**	**0.1083**	**2.7697**		**10,621.6279**	**10,621.6279**	**0.3815**	**8.3900e-003**	**10,633.6656**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.21**	**3.29**	**3.78**	**4.91**	**5.20**	**3.46**	**5.18**	**5.20**	**3.40**	**5.13**	**0.00**	**4.81**	**4.81**	**4.35**	**0.00**	**4.81**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Transit Subsidy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4991	7.9284	29.9468	0.1007	9.9387	0.0847	10.0234	2.6614	0.0791	2.7405		10,163.7250	10,163.7250	0.3723		10,173.0331
Unmitigated	2.5561	8.2109	31.1394	0.1061	10.4835	0.0888	10.5723	2.8073	0.0829	2.8902		10,700.4038	10,700.4038	0.3897		10,710.1455

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	1,885.00	1,885.00	1885.00	4,935,234	4,678,749
Total	1,885.00	1,885.00	1,885.00	4,935,234	4,678,749

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.476244	0.050164	0.262181	0.139658	0.017521	0.006864	0.023236	0.006525	0.004137	0.003158	0.009064	0.000471	0.000777

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
NaturalGas Unmitigated	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	3890.96	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Total		**0.0420**	**0.3815**	**0.3204**	**2.2900e-003**		**0.0290**	**0.0290**		**0.0290**	**0.0290**		**457.7606**	**457.7606**	**8.7700e-003**	**8.3900e-003**	**460.4808**

Mitigated

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

Land Use	kBTU/yr	lb/day										lb/day					
High School	3.89096	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Total		**0.0420**	**0.3815**	**0.3204**	**2.2900e-003**		**0.0290**	**0.0290**		**0.0290**	**0.0290**		**457.7606**	**457.7606**	**8.7700e-003**	**8.3900e-003**	**460.4808**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Unmitigated	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	1.8453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1800e-003	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Total	**2.0979**	**6.1000e-004**	**0.0665**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1423**	**0.1423**	**3.8000e-004**		**0.1516**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1800e-003	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Total	**2.0979**	**6.1000e-004**	**0.0665**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1423**	**0.1423**	**3.8000e-004**		**0.1516**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

KIPP Esperanza High School

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	650.00	Student	1.98	86,229.64	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on 2020 PG&E CRSR Report

Land Use -

Construction Phase - Operational only phase

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - Per Traffic Analysis

Woodstoves -

Energy Use -

Construction Off-road Equipment Mitigation - Operational only run

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	200.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	4.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	AcresOfGrading	0.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblVehicleTrips	ST_TR	0.61	2.90
tblVehicleTrips	SU_TR	0.25	2.90
tblVehicleTrips	WD_TR	1.71	2.90

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

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

Category	lb/day										lb/day					
Area	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Energy	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Mobile	2.7809	7.5763	30.3483	0.1116	10.4835	0.0885	10.5720	2.8073	0.0826	2.8899		11,259.4394	11,259.4394	0.3838		11,269.0348
Total	**4.9208**	**7.9584**	**30.7352**	**0.1139**	**10.4835**	**0.1177**	**10.6012**	**2.8073**	**0.1118**	**2.9191**		**11,717.3422**	**11,717.3422**	**0.3930**	**8.3900e-003**	**11,729.6673**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Energy	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Mobile	2.7245	7.3240	29.0775	0.1060	9.9387	0.0844	10.0231	2.6614	0.0788	2.7402		10,694.4346	10,694.4346	0.3662		10,703.5896
Total	**4.8643**	**7.7060**	**29.4644**	**0.1083**	**9.9387**	**0.1137**	**10.0523**	**2.6614**	**0.1080**	**2.7694**		**11,152.3374**	**11,152.3374**	**0.3754**	**8.3900e-003**	**11,164.2221**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.15**	**3.17**	**4.13**	**4.91**	**5.20**	**3.47**	**5.18**	**5.20**	**3.40**	**5.13**	**0.00**	**4.82**	**4.82**	**4.48**	**0.00**	**4.82**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Transit Subsidy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7245	7.3240	29.0775	0.1060	9.9387	0.0844	10.0231	2.6614	0.0788	2.7402		10,694.4346	10,694.4346	0.3662		10,703.5896
Unmitigated	2.7809	7.5763	30.3483	0.1116	10.4835	0.0885	10.5720	2.8073	0.0826	2.8899		11,259.4394	11,259.4394	0.3838		11,269.0348

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	1,885.00	1,885.00	1885.00	4,935,234	4,678,749
Total	1,885.00	1,885.00	1,885.00	4,935,234	4,678,749

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.476244	0.050164	0.262181	0.139658	0.017521	0.006864	0.023236	0.006525	0.004137	0.003158	0.009064	0.000471	0.000777

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
NaturalGas Unmitigated	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	3890.96	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Total		**0.0420**	**0.3815**	**0.3204**	**2.2900e-003**		**0.0290**	**0.0290**		**0.0290**	**0.0290**		**457.7606**	**457.7606**	**8.7700e-003**	**8.3900e-003**	**460.4808**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	3.89096	0.0420	0.3815	0.3204	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.7606	457.7606	8.7700e-003	8.3900e-003	460.4808
Total		**0.0420**	**0.3815**	**0.3204**	**2.2900e-003**		**0.0290**	**0.0290**		**0.0290**	**0.0290**		**457.7606**	**457.7606**	**8.7700e-003**	**8.3900e-003**	**460.4808**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Unmitigated	2.0979	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516

6.2 Area by SubCategory

Unmitigated

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

Architectural Coating	0.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1800e-003	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Total	**2.0979**	**6.1000e-004**	**0.0665**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1423**	**0.1423**	**3.8000e-004**		**0.1516**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8453					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1800e-003	6.1000e-004	0.0665	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1423	0.1423	3.8000e-004		0.1516
Total	**2.0979**	**6.1000e-004**	**0.0665**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1423**	**0.1423**	**3.8000e-004**		**0.1516**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

KIPP Esperanza High School

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	650.00	Student	1.98	86,229.64	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	163	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Based on 2020 PG&E CRSR Report

Land Use -

Construction Phase - Operational only phase

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading -

Vehicle Trips - Per Traffic Analysis

Woodstoves -

Energy Use -

Construction Off-road Equipment Mitigation - Operational only run

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	200.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	4.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	AcresOfGrading	0.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	163
tblVehicleTrips	ST_TR	0.61	2.90
tblVehicleTrips	SU_TR	0.25	2.90
tblVehicleTrips	WD_TR	1.71	2.90

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

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

Category	tons/yr										MT/yr					
Area	0.3823	5.0000e-005	5.9800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0124
Energy	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	104.0943	104.0943	6.4900e-003	2.4300e-003	104.9811
Mobile	0.4613	1.4501	5.4237	0.0193	1.8298	0.0161	1.8459	0.4917	0.0150	0.5068	0.0000	1,771.1554	1,771.1554	0.0632	0.0000	1,772.7352
Waste						0.0000	0.0000		0.0000	0.0000	24.0808	0.0000	24.0808	1.4231	0.0000	59.6592
Water						0.0000	0.0000		0.0000	0.0000	0.9084	3.0507	3.9591	0.0938	2.3200e-003	6.9951
Total	**0.8512**	**1.5197**	**5.4881**	**0.0198**	**1.8298**	**0.0214**	**1.8512**	**0.4917**	**0.0204**	**0.5121**	**24.9892**	**1,878.3120**	**1,903.3012**	**1.5867**	**4.7500e-003**	**1,944.3830**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3823	5.0000e-005	5.9800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0124
Energy	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	104.0943	104.0943	6.4900e-003	2.4300e-003	104.9811
Mobile	0.4510	1.4008	5.2099	0.0184	1.7347	0.0154	1.7501	0.4662	0.0143	0.4805	0.0000	1,682.3806	1,682.3806	0.0604	0.0000	1,683.8893
Waste						0.0000	0.0000		0.0000	0.0000	12.0404	0.0000	12.0404	0.7116	0.0000	29.8296
Water						0.0000	0.0000		0.0000	0.0000	0.7267	2.7054	3.4321	0.0751	1.8600e-003	5.8650
Total	**0.8410**	**1.4705**	**5.2744**	**0.0188**	**1.7347**	**0.0207**	**1.7554**	**0.4662**	**0.0197**	**0.4858**	**12.7671**	**1,789.1920**	**1,801.9591**	**0.8536**	**4.2900e-003**	**1,824.5773**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.20**	**3.24**	**3.89**	**4.86**	**5.20**	**3.45**	**5.18**	**5.20**	**3.44**	**5.13**	**48.91**	**4.74**	**5.32**	**46.20**	**9.68**	**6.16**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Transit Subsidy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4510	1.4008	5.2099	0.0184	1.7347	0.0154	1.7501	0.4662	0.0143	0.4805	0.0000	1,682.3806	1,682.3806	0.0604	0.0000	1,683.8893
Unmitigated	0.4613	1.4501	5.4237	0.0193	1.8298	0.0161	1.8459	0.4917	0.0150	0.5068	0.0000	1,771.1554	1,771.1554	0.0632	0.0000	1,772.7352

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	1,885.00	1,885.00	1885.00	4,935,234	4,678,749
Total	1,885.00	1,885.00	1,885.00	4,935,234	4,678,749

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

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

High School	0.476244	0.050164	0.262181	0.139658	0.017521	0.006864	0.023236	0.006525	0.004137	0.003158	0.009064	0.000471	0.000777

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.3069	28.3069	5.0400e-003	1.0400e-003	28.7434
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.3069	28.3069	5.0400e-003	1.0400e-003	28.7434
NaturalGas Mitigated	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7874	75.7874	1.4500e-003	1.3900e-003	76.2378
NaturalGas Unmitigated	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7874	75.7874	1.4500e-003	1.3900e-003	76.2378

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	1.4202e+006	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7874	75.7874	1.4500e-003	1.3900e-003	76.2378
Total		**7.6600e-003**	**0.0696**	**0.0585**	**4.2000e-004**		**5.2900e-003**	**5.2900e-003**		**5.2900e-003**	**5.2900e-003**	**0.0000**	**75.7874**	**75.7874**	**1.4500e-003**	**1.3900e-003**	**76.2378**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	1.4202e+006	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7874	75.7874	1.4500e-003	1.3900e-003	76.2378
Total		**7.6600e-003**	**0.0696**	**0.0585**	**4.2000e-004**		**5.2900e-003**	**5.2900e-003**		**5.2900e-003**	**5.2900e-003**	**0.0000**	**75.7874**	**75.7874**	**1.4500e-003**	**1.3900e-003**	**76.2378**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	382860	28.3069	5.0400e-003	1.0400e-003	28.7434
Total		**28.3069**	**5.0400e-003**	**1.0400e-003**	**28.7434**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	382860	28.3069	5.0400e-003	1.0400e-003	28.7434
Total		**28.3069**	**5.0400e-003**	**1.0400e-003**	**28.7434**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3823	5.0000e-005	5.9800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0124
Unmitigated	0.3823	5.0000e-005	5.9800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0124

6.2 Area by SubCategory

Unmitigated

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

Architectural Coating	0.0450					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3368					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.6000e-004	5.0000e-005	5.9800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0124
Total	**0.3823**	**5.0000e-005**	**5.9800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0116**	**0.0116**	**3.0000e-005**	**0.0000**	**0.0124**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0450					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3368					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.6000e-004	5.0000e-005	5.9800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0124
Total	**0.3823**	**5.0000e-005**	**5.9800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0116**	**0.0116**	**3.0000e-005**	**0.0000**	**0.0124**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.4321	0.0751	1.8600e-003	5.8650
Unmitigated	3.9591	0.0938	2.3200e-003	6.9951

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	2.86322 / 7.36258	3.9591	0.0938	2.3200e-003	6.9951
Total		**3.9591**	**0.0938**	**2.3200e-003**	**6.9951**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
High School	2.29058 / 6.91346	3.4321	0.0751	1.8600e-003	5.8650
Total		**3.4321**	**0.0751**	**1.8600e-003**	**5.8650**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.0404	0.7116	0.0000	29.8296
Unmitigated	24.0808	1.4231	0.0000	59.6592

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

High School	118.63	24.0808	1.4231	0.0000	59.6592
Total		**24.0808**	**1.4231**	**0.0000**	**59.6592**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	59.315	12.0404	0.7116	0.0000	29.8296
Total		**12.0404**	**0.7116**	**0.0000**	**29.8296**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Kipp School

Construction

$PM_{2.5}$ On-Site Exhaust

		Mitigated		Unmitigated	
Year	**Construction Phase**	**Tons/Year**	**g/s**	**Tons/Year**	**g/s**
2021	Demolition	0.0010	2.79E-05	0.001	2.79E-05
2021	Site Preparation	0.0003	8.05E-06	0.0003	8.05E-06
2021	Grading	0.0016	4.46E-05	0.0016	4.46E-05
2021	Paving	0.0033	9.46E-05	0.0033	9.46E-05
2021	Building Construction	0.0052	1.48E-04	0.0052	1.48E-04
2021	Arch. Coating	0.0002	6.90E-06	0.0002	6.90E-06
		max:	1.48E-04	max:	1.48E-04
		0.01		0.01	

Conversions:

1 ton =	907184.7	grams
1 year =	3.15E+07	seconds

County Population: 766,573 San Mateo County See 70 FR 68218, November 9, 2005

	µg/m³		
	1 hr	24 hr	Annual
Unmitigated Concentration from AERSCREEN	9.89E-02	5.94E-02	9.89E-03

HARP 2 Risk Summary

Unmitigated

			Cancer		**Per 1 million**	**Chronic**	**Acute**	
INDEX	**POLID**		**CONC**	**INH_RISK**		**RESP**	**CONC**	**RESP**
1	9901	Diesel ExhPM	9.89E-03	3.77E-06	3.77	9.89E-03	9.89E-02	
2	107028	Acrolein				0.0	9.89E-02	3.96E-02

TITLE: KIPP SCHOOL

********** VOLUME PARAMETERS **********

SOURCE EMISSION RATE:	0.148E-03	g/s	0.117E-02	lb/hr
VOLUME HEIGHT:	5.00	meters	16.40	feet
INITIAL LATERAL DIMENSION:	9.77	meters	32.05	feet
INITIAL VERTICAL DIMENSION:	1.00	meters	3.28	feet
RURAL OR URBAN:	URBAN			
POPULATION:	766573			

INITIAL PROBE DISTANCE = 5000. meters 16404. feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** PROBE ANALYSIS **********

25 meter receptor spacing: 37. meters - 5000. meters

Zo SECTOR	ROUGHNESS LENGTH	1-HR CONC (ug/m3)	DIST (m)	TEMPORAL PERIOD
1*	1.000	0.9892E-01	37.0	ANN

* = worst case flow sector

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 278.0 / 298.0 (K)

MINIMUM WIND SPEED: 1.3 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: USER ENTERED

ALBEDO: 0.21
BOWEN RATIO: 1.63
ROUGHNESS LENGTH: 1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	04	4	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-11.45	0.130	-9.000	0.020	-999.	108.	17.7	1.000	1.63	0.21	1.50

HT	REF TA	HT
10.0	298.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	01	04	4	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-11.45	0.130	-9.000	0.020	-999.	108.	17.7	1.000	1.63	0.21	1.50

HT	REF TA	HT
10.0	298.0	2.0

****
********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
****

MAXIMUM MAXIMUM

DIST (m)	1-HR CONC (ug/m3)	DIST (m)	1-HR CONC (ug/m3)
36.99	0.9892E-01	2525.00	0.1849E-03
50.00	0.6061E-01	2550.00	0.1836E-03
75.00	0.3082E-01	2575.00	0.1824E-03
100.00	0.1898E-01	2600.00	0.1812E-03
125.00	0.1302E-01	2625.00	0.1801E-03
150.00	0.9571E-02	2650.00	0.1789E-03
175.00	0.7777E-02	2675.00	0.1778E-03
200.00	0.6697E-02	2700.00	0.1767E-03
225.00	0.5823E-02	2725.00	0.1756E-03
250.00	0.5108E-02	2750.00	0.1745E-03
275.00	0.4519E-02	2775.00	0.1734E-03
300.00	0.4029E-02	2800.00	0.1724E-03
325.00	0.3616E-02	2825.00	0.1713E-03
350.00	0.3264E-02	2850.00	0.1703E-03
375.00	0.2961E-02	2875.00	0.1693E-03
400.00	0.2699E-02	2900.00	0.1683E-03
425.00	0.2470E-02	2925.00	0.1673E-03
450.00	0.2270E-02	2950.00	0.1664E-03
475.00	0.2093E-02	2975.00	0.1654E-03
500.00	0.1937E-02	3000.00	0.1644E-03
525.00	0.1798E-02	3025.00	0.1635E-03
550.00	0.1673E-02	3050.00	0.1626E-03
575.00	0.1561E-02	3075.00	0.1617E-03
600.00	0.1460E-02	3100.00	0.1608E-03
625.00	0.1368E-02	3125.00	0.1599E-03
650.00	0.1284E-02	3150.00	0.1590E-03
675.00	0.1208E-02	3175.00	0.1582E-03
700.00	0.1138E-02	3200.00	0.1573E-03
725.00	0.1075E-02	3225.00	0.1565E-03
750.00	0.1016E-02	3250.00	0.1556E-03
775.00	0.9620E-03	3275.00	0.1548E-03
800.00	0.9121E-03	3300.00	0.1540E-03
825.00	0.8658E-03	3325.00	0.1532E-03
850.00	0.8229E-03	3350.00	0.1524E-03
875.00	0.7831E-03	3375.00	0.1516E-03
900.00	0.7460E-03	3400.00	0.1509E-03
925.00	0.7131E-03	3425.00	0.1501E-03
950.00	0.6857E-03	3450.00	0.1494E-03
975.00	0.6600E-03	3475.00	0.1486E-03
1000.00	0.6358E-03	3500.00	0.1479E-03
1025.00	0.6131E-03	3525.00	0.1471E-03
1050.00	0.5916E-03	3550.00	0.1464E-03
1075.00	0.5714E-03	3575.00	0.1457E-03
1100.00	0.5523E-03	3600.00	0.1450E-03
1125.00	0.5342E-03	3625.00	0.1443E-03
1150.00	0.5171E-03	3650.00	0.1436E-03
1175.00	0.5009E-03	3675.00	0.1429E-03

1200.00	0.4855E-03	3700.00	0.1423E-03
1225.00	0.4709E-03	3725.00	0.1416E-03
1250.00	0.4570E-03	3750.00	0.1409E-03
1275.00	0.4438E-03	3775.00	0.1403E-03
1300.00	0.4312E-03	3800.00	0.1396E-03
1325.00	0.4191E-03	3825.00	0.1390E-03
1350.00	0.4077E-03	3850.00	0.1384E-03
1375.00	0.3967E-03	3875.00	0.1377E-03
1400.00	0.3863E-03	3900.00	0.1371E-03
1425.00	0.3763E-03	3925.00	0.1364E-03
1450.00	0.3667E-03	3950.00	0.1358E-03
1475.00	0.3576E-03	3975.00	0.1352E-03
1500.00	0.3488E-03	4000.00	0.1346E-03
1525.00	0.3404E-03	4025.00	0.1340E-03
1550.00	0.3323E-03	4050.00	0.1333E-03
1575.00	0.3246E-03	4075.00	0.1327E-03
1600.00	0.3172E-03	4100.00	0.1322E-03
1625.00	0.3101E-03	4125.00	0.1316E-03
1650.00	0.3032E-03	4150.00	0.1310E-03
1675.00	0.2967E-03	4175.00	0.1304E-03
1700.00	0.2903E-03	4200.00	0.1298E-03
1725.00	0.2843E-03	4225.00	0.1293E-03
1750.00	0.2784E-03	4250.00	0.1287E-03
1775.00	0.2728E-03	4275.00	0.1282E-03
1800.00	0.2674E-03	4300.00	0.1276E-03
1825.00	0.2622E-03	4325.00	0.1271E-03
1850.00	0.2572E-03	4350.00	0.1266E-03
1875.00	0.2524E-03	4375.00	0.1260E-03
1900.00	0.2477E-03	4400.00	0.1255E-03
1925.00	0.2432E-03	4425.00	0.1250E-03
1950.00	0.2389E-03	4450.00	0.1245E-03
1975.00	0.2348E-03	4475.00	0.1240E-03
2000.00	0.2307E-03	4500.00	0.1235E-03
2025.00	0.2269E-03	4525.00	0.1230E-03
2050.00	0.2231E-03	4550.00	0.1225E-03
2075.00	0.2195E-03	4575.00	0.1220E-03
2100.00	0.2161E-03	4600.00	0.1215E-03
2125.00	0.2127E-03	4625.00	0.1210E-03
2150.00	0.2095E-03	4650.00	0.1205E-03
2175.00	0.2063E-03	4675.00	0.1201E-03
2200.00	0.2033E-03	4700.00	0.1196E-03
2225.00	0.2011E-03	4725.00	0.1191E-03
2250.00	0.1997E-03	4750.00	0.1187E-03
2275.00	0.1982E-03	4775.00	0.1182E-03
2300.00	0.1968E-03	4800.00	0.1178E-03
2325.00	0.1953E-03	4825.00	0.1173E-03
2350.00	0.1940E-03	4850.00	0.1169E-03
2375.00	0.1926E-03	4875.00	0.1164E-03
2400.00	0.1913E-03	4900.00	0.1160E-03
2425.00	0.1899E-03	4925.00	0.1156E-03

2450.00	0.1886E-03	4950.00	0.1151E-03
2475.00	0.1874E-03	4975.00	0.1147E-03
2500.00	0.1861E-03	5000.00	0.1143E-03

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.9892E-01	0.9892E-01	0.8902E-01	0.5935E-01	0.9892E-02

DISTANCE FROM SOURCE 36.99 meters

IMPACT AT THE AMBIENT BOUNDARY	0.9892E-01	0.9892E-01	0.8902E-01	0.5935E-01	0.9892E-02

DISTANCE FROM SOURCE 36.99 meters

*HARP - HRACalc v19044 11/29/2020 11:32:08 PM - Cancer Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Kipp School\Kipp School_Const_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_RISK
2			107028	Acrolein	0	0.00E+00	3YrCancerHi	*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1			9901	DieselExhF	0.00989	3.77E-06	3YrCancerHi	*	3.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EGG_RISK	1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 11/29/2020 11:32:08 PM - Acute Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Kipp School\Kipp School_Const_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL
	2		107028	Acrolein	0.0989	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1		9901	DieselExhPM	0.0989	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
3.96E-02	0.00E+00	3.96E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 11/29/2020 11:32:08 PM - Chronic Risk - Input File: C:\Users\noemi.wyss\Desktop\HARP\Kipp School\Kipp School_Const_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS	INH_CONC	SOIL_DOSE	DERMAL_DOSE
2			107028	Acrolein	0	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	0.00E+00	0.00E+00	0.00E+00
1			9901	DieselExhPM	0.00989	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	9.89E-03	0.00E+00	0.00E+00

MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE	EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

Appendix B

Traffic Study

HEXAGON TRANSPORTATION CONSULTANTS, INC.

KIPP Charter High School Development

Transportation Analysis

Prepared for:

Kimley-Horn

November 25, 2020

Hexagon Transportation Consultants, Inc.

Hexagon Office: 4 North Second Street, Suite 400

San Jose, CA 95113

Hexagon Job Number: 20LJ01

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Client Name: Kimley-Horn

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Executive Summary

This report presents the results of the transportation analysis conducted for the proposed public charter high school at 1039 and 1063 Garden Street in East Palo Alto, California. This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development. To be conservative, this transportation analysis report is based on pre-virus conditions.

The transportation impacts of the project were evaluated following the standards and methodologies established by the City of East Palo Alto. The transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA). As confirmed by a recent court case, level of service (LOS) can no longer be used to identify significant impacts under CEQA. Thus, transportation impacts were assessed based on vehicle miles traveled (VMT). The transportation analysis also includes an evaluation of the project's effects on nearby roadway intersections based on the LOS standards set forth in the General Plan as required by the City.

CEQA Transportation Impacts

The project proposes to implement the following Travel Demand Management (TDM) measures that would reduce daily VMT below the citywide average of 21.93 miles per employee/student:

- **School Busses:** In the first year of operation, the school would provide bus service for 50 students living in selected neighborhoods outside of walking distance from the school. Bus service would be expanded each year with 200 students riding the bus at full enrollment.
- **Commute Assistance Center:** The school would provide an on-site Commute Assistance Center to provide students and families with transit and commute information.
- **Bicycle Racks:** The school would provide bicycle racks for student and staff use.
- **Subsidized Transit Passes:** The school would provide transit subsidies to students and staff.

With the proposed TDM measures, the VMT generated by the proposed school employees and students would be at least 28 percent below the existing Citywide average home-based work/home-based school daily VMT of 21.93 miles per employee/student. The expected high percentage of students that would walk or bike to school would further reduce the VMT. Thus, the school is expected to comply with the City's VMT policy, which requires a minimum 15 percent reduction in VMT below the existing Citywide average daily VMT.

Local Transportation Analysis

Project Trip Generation

The magnitude of traffic generated by the proposed school was estimated by multiplying the average trip generation rate observed at local middle schools by the proposed enrollment of 650 students minus the 200 students expected to be transported by school busses. The proposed project site would have fewer than 50 full-time employees, therefore the project would be not subject to the TDM requirements expressed in the City's Code (Municipal Code Section 10.32.040). The proposed school is expected to generate a total of 1,060 daily vehicle trips with 291 trips (154 in and 137 out) during the AM peak hour and 140 trips (59 in and 81 out) during the PM peak hour.

Existing Plus Project Intersection Levels of Service

Existing plus project conditions were evaluated both without and with the planned loop road identified in the Ravenswood / 4 Corners TOD Specific Plan. Table ES-1 presents a summary of the intersection levels of service under existing and existing plus project conditions. Both without and with the loop road, the proposed project would cause an adverse effect at five study intersections. Each of the recommended improvements is presented below. The improvements would be required both without and with the loop road.

4. US 101 Northbound On Ramp/University Plaza Phase II Driveway and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In order to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on ramp shall be shifted approximately 30 feet to the east. In addition, the westbound approach on Donohoe Street shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and a shared through-right lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

In addition, eliminating the project's adverse effect at this intersection also would require improvements at the intersection of Euclid/Donohoe/East Bayshore. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. Furthermore, the westbound approach shall be restriped to add an exclusive right-turn lane.

With the recommended improvements, the US 101 Northbound On Ramp/University Plaza Phase II Driveway/Donohoe intersection is expected to operate at an acceptable LOS C or better during both the AM and PM peak hours.

5. University Avenue and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp.

With the recommended improvements at this intersection and other neaby intersections, the intersection is expected to continue to operate at LOS F during the AM peak hour, however, the average delay would be less than under existing conditions. Thus, the improvements would eliminate the adverse effect of the project.

6. US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street.

With these proposed improvements at this intersection and other neaby intersections, the intersection of US 101 northbound off ramp and Donohoe Street is expected to operate at an acceptable level (LOS D or better) during the AM and PM peak hours.

7. Cooley Avenue and Donohoe Street

Improvements: Construction of the planned loop is not expected to affect the traffic volumes or delay at this intersection. The eastbound approach on Donohoe Street shall be restriped to accomodate one full left-turn lane from the upstream intersection and two through lanes and the traffic signal shall be coordinated with adjacent traffic signals on Donohoe Street.

With all the proposed improvements at this and other neaby intersections along Donohoe Street, the intersection of Cooley Avenue and Donohoe Street is expected to operate at an acceptable LOS C or better during the AM and PM peak hours.

8. East Bayshore Road and Donohoe Street

Improvements: Construction of the planned loop is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on Donohoe Street and cause the East Bayshore/Donohoe intersection to operate at LOS B during the AM peak hour under existing plus project conditions. No additional improvements are required at this intersection.

Cumulative Plus Project Intersection Levels of Service

Cumulative conditions assume the construction of improvements identified in the Ravenswood / 4 Corners TOD Specific Plan EIR but do not assume the completion of the planned loop road. However, the loop road was evaluated as a potential improvement. Cumulative conditions also include the Bay Road Improvement Project, which will affect the lane geometry at two study intersections: Clarke Avene/Bay Road and Pulgas Avenue/Bay Road.

Under cumulative plus project conditions, twenty study intersections would be adversely affected by the proposed project (See Table ES-2). Each of the proposed improvements is presented below.

1. Ralmar Avenue and Newbridge Street/Bay Road

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 33 percent, which could be achieved by expanding the bussing program from 200 to 350 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS B during the AM peak hour and LOS A during the PM peak hour under cumulative plus project conditions.

2. University Avenue and Bay Road

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 13 percent, which could be achieved by expanding the bussing program from 200 to 260 students.

Construction of the planned loop road would reduce the traffic volume at the University/Bay intersection causing a decrease in the average vehicle delay during the AM peak hour. While the intersection would continue to operate at an unacceptable LOS E, the average vehicle delay would be less than under cumulative no project conditions. Therefore, construction of the loop road would fully offset the adverse effect at this intersection.

4. US 101 Northbound On-Ramp/University Plaza Phase II Driveway and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In order to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on ramp shall be shifted approximately 30 feet to the east. In addition, the westbound

approach on Donohoe Street shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and a shared through-right lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

In addition, eliminating the project's cumulative adverse effect at this intersection also would require improvements at the intersection of Euclid/Donohoe/East Bayshore. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. Furthermore, the westbound approach shall be restriped to add an exclusive right-turn lane.

With these recommended improvements, the US 101 Northbound On-Ramp/University Plaza Phase II Driveway/Donohoe intersection is expected to operate at an acceptable LOS C during both the AM and PM peak hours.

5. University Avenue and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp. In addition, the inner left-turn lane on the northbound University Avenue approach shall be extended by an additional 250 feet. The northbound approach on University Avenue consists of dual left-turn lanes, with the inner left-turn lane measuring 175 feet and the outer left-turn lane measuring 125 feet. With the extension of the inner left-turn lane by an additional 250 feet, the two northbound left-turn lanes would provide for a total of 550 feet of queue storage capacity, or 22 vehicles. This additional storage would prevent left-turn queues from spilling over into the adjacent through lane and impeding the through traffic on University Avenue. Extension of the northbound left-turn lane can be accommodated within the existing right-of-way, by cutting into the raised median on University Avenue. This improvement would not require any additional right-of-way acquisition or reconfiguration of the US 101 overpass.

With the implementation of these improvements, the University Avenue/Donohoe Street intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours. However, the average delay per vehicle would be less than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

6. US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through

lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street.

With all these proposed improvements, the intersection of US 101 northbound off ramp and Donohoe Street is expected to operate at an acceptable level (LOS D) during the AM peak hour. During the PM peak hour, the intersection would continue to operate at an unacceptable LOS F. However, the average delay per vehicle would be less than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

7. Cooley Avenue and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The eastbound Donohoe Street approach to Cooley Avenue shall be restriped to include two through lanes and a full length left-turn lane and the traffic signal shall be coordinated with adjacent traffic signals on Donohoe Street.

With the recommended modifications at the University/Cooley intersection described above, along with the recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, and at the US 101 northbound off ramp, the intersection of Cooley Avenue and Donohoe Street is expected to operate at an acceptable LOS D during the AM and PM peak hours. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

8. East Bayshore Road and Donohoe Street

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on Donohoe Street and reduce delay at the East Bayshore/Donohoe intersection. The intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions during the AM and PM peak hours. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection. No additional improvements are required to eliminate the adverse effects of the project at this intersection.

9. University Avenue and US 101 Southbound Ramps

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue and eliminate the queue spillback that extends from Donohoe

Street past the US 101 southbound ramps and would reduce the delay at the University Avenue and US 101 southbound ramps intersection. The intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions. No additional improvements are required to eliminate the cumulative adverse effect of the project at this intersection.

10. University Avenue and Woodland Avenue

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue, and as a result reduce the queues on Woodland Avenue.

The intersection would continue to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the adverse cumulative project effects. No additional improvements are required to eliminate the adverse cumulative project effect at this intersection.

11. University Circle and Woodland Avenue

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue and as a result reduce the queues on Woodland Avenue.

The intersection would operate at an unacceptable LOS E during both the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the adverse cumulative project effects. No additional improvements are required to eliminate the adverse cumulative project effect at this intersection.

12. Clarke Avenue and Bay Road

Improvements: Cumulative conditions assume the completion of the Bay Road improvement project and installation of a traffic signal at this intersection, which was identified as an improvement in the Ravenswood/Four Corners TOD Specific Plan DEIR.

Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 48 percent, which could be achieved by expanding the bussing program from 200 to 420 students.

Construction of the planned loop road would reduce the traffic volume at the Clarke/Bay intersection causing a decrease in the average vehicle delay during both peak hours. With the loop road, the intersection would operate at an acceptable LOS C during the AM and PM peak hours under cumulative plus project conditions. Therefore, construction of the loop road would eliminate the project's cumulative adverse effect on traffic operations at this intersection.

13. Clarke Avenue and Weeks Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 49 percent, which could be achieved by expanding the bussing program from 200 to 420 students.

The construction of the planned loop road would have only a minor effect on the traffic volumes and delay at the Clarke/Weeks intersection. Therefore, construction of the loop road alone would not be sufficient to eliminate the adverse effect at this intersection.

The adverse cumulative effect at this intersection could be eliminated by constructing the planned loop road and installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable level (LOS B) during the AM and PM peak hours under cumulative plus project conditions.

14. Clarke Avenue and Runnymede Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 44 percent, which could be achieved by expanding the bussing program from 200 to 400 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C or better during the AM and PM peak hours under cumulative plus project conditions.

15. Clarke Avenue and Schembri Lane/Garden Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 8 percent, which could be achieved by expanding the bussing program from 200 to 240 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS B during the AM peak hour and LOS A during the PM peak hour under cumulative plus project conditions.

16. Clarke Avenue and Donohoe Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 43 percent, which could be achieved by expanding the bussing program from 200 to 390 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C during the AM and PM peak hours under cumulative plus project conditions.

17. Pulgas Avenue and Bay Road

Improvements: Cumulative conditions assume the completion of the Bay Road improvement project and installation of a traffic signal at this intersection, which was identified as an improvement in the Ravenswood/Four Corners TOD Specific Plan DEIR.

Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 15 percent, which could be achieved by expanding the bussing program from 200 to 270 students.

Construction of the planned loop road would have only a minor effect on the traffic volumes and delay at the Pulgas/Bay intersection. Therefore, construction of the loop road would not eliminate the project's adverse effect at this intersection.

The adverse cumulative effect at this intersection could be eliminated by constructing the planned loop road, adding an exclusive left-turn lane on the westbound Bay Road approach, and modifying the northbound Pulgas Avenue approach to include one exclusive left-turn lane and one shared left/through/right-turn lane. Split phase signal control shall be used on the north and south approaches. These improvements will require the acquisition of additional right of way at the northeast corner to allow for curb, gutter, sidewalk, and signal equipment. However, the needed right of way would not require the demolition of the existing building on the northeast corner. With these improvements, the intersection would operate at an unacceptable level (LOS F and LOS E during

the AM and PM peak hours, respectively). However, the average delays would be less than under cumulative no project conditions.

18. Pulgas Avenue and Weeks Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 15 percent, which could be achieved by expanding the bussing program from 200 to 270 students.

Construction of the planned loop road would reduce the traffic volume at the Pulgas Avenue/Week Street intersection causing a decrease in the control delay during the AM peak hour. While the intersection would continue to operate at an unacceptable LOS F, the increase of control delay would be less than five seconds comparing to the cumulative no project conditions. Therefore, construction of the loop road would eliminate the adverse effect at this intersection.

19. Pulgas Avenue and Runnymede Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 20 percent, which could be achieved by expanding the bussing program from 200 to 290 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C during the AM peak hour and LOS B during the PM peak hour under cumulative plus project conditions.

20. Pulgas Avenue and Garden Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 40 percent, which could be achieved by expanding the bussing program from 200 to 380 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS A during the AM and PM peak hours under cumulative plus project conditions.

21. Pulgas Avenue and O'Connor Street

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 26 percent, which could be achieved by expanding the bussing program from 200 to 320 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to enhanced TDM measures, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C during the AM and PM peak hours under cumulative plus project conditions.

Potential Impacts on Pedestrians, Bicycles and Transit

It is expected that many students would walk or bike to the school. It is recommended that a new sidewalk be constructed along the north side of Garden Street between Clarke Avenue and the project site.

Crosswalks with ADA-compliant curb ramps should be provided at the following locations to enhance the student walking routes to school:

- Pulgas Avenue and Garden Street: north approach
- Clarke Avenue and Garden Street: north and east approaches

These new pedestrian crosswalks should be yellow due to their proximity to the proposed school. For added visibility, the area of the crosswalks should be marked with yellow longitudinal lines parallel to traffic flow.

The existing bicycles facilities in the immediate vicinity of the project site include bike lanes on Bay Road from Newbridge Street to Clarke Avenue, and on University Avenue north of Donohoe Street. These bicycle facilities are not well-connected. The Bay Road Improvement Project will extend the existing bike lanes on Bay Road from their current terminus at Clarke Avenue eastward past Tara Street. Furthermore, the East Palo Alto General Plan 2035 shows planned Class II bike lanes along the entirety of Pulgas Avenue and Class III bike routes along Weeks Street, Cooley Avenue, East Bayshore Road, Euclid Avenue, and Runnymede Street between Cooley Avenue and Euclid Avenue. The planned improvements to the bicycle network would improve bike access to the site.

The school is currently served by two SamTrans bus routes. In addition, KIPP is planning to provide private bus service to students who live in selected neighborhoods outside of walking distance to the school. The combination of public transit services and private bus service is expected to substantially reduce the vehicle trips generated by the proposed school.

Parking Analysis

The school would provide a total of 52 parking spaces, which would meet the parking requirements for mid-day use with or without student drivers (43 and 29 spaces, respectively). During evening/weekend events, the proposed number of parking spaces would not meet the parking requirement of 90 spaces.

> **Recommendation:** In order to prevent the parking issues during all-school special events on weekday evenings and weekends, the school should secure rights to utilize parking at a parcel near the proposed KIPP site or host such events off-site at a location with ample parking.

Furthermore, because the adequacy of parking during the school day is based on the assumption that at most 14 students drive to school, it is recommended that the school establish a parking permit system for student drivers to ensure that a greater than expected number of student drivers does not adversely impact parking conditions on Garden Street during typical school hours.

> **Recommendation:** School staff should monitor on-street parking on Garden Street before and after school to identify if any students are violating student driving and parking policies with appropriate penalties to be issued by the school.

The site plan does not show the dimensions of vehicle parking spaces. Prior to final design, the vehicle parking space dimensions should be labeled to confirm that they comply with City of East Palo Alto standards.

KIPP's TDM Plan states that KIPP will provide bicycle racks but the site plan does not show where existing and proposed bicycle parking spaces would be located.

> **Recommendation:** Long-term (Class I) and short-term (Class II) bicycle parking should be provided in accordance with the bicycle parking requirements set forth in the East Palo Alto Municipal Code.

Vehicular Site Access and Circulation

The following recommendations were identified to address issues associated site access, and on-site circulation, and student drop-off/pick-up:

- The eastern driveway should be limited to outbound only traffic during the peak drop-off and pick-up periods in order to reduce conflicts for vehicles exiting after dropping off or picking up students. It would function as a two-way driveway during the mid-day for visitor use. Staff should monitor the eastern driveway during peak periods to ensure its proper use and to prevent parents from using the eastern parking lot as a student drop off or pick up area.
- It is recommended that the student loading zone be lengthened to the maximum possible distance. It is estimated that extending that student loading zone by 75 feet (from five to eight vehicles) would prevent queues from extending onto Garden Street. Furthermore, measures should be taken to ensure efficient utilization of on-site queuing space to minimize disruptions to traffic flow on Garden Street. Thus, KIPP Charter High School should implement appropriate signage, striping and/or traffic attendants to encourage drivers to not disrupt the flow of traffic into and out of the site during peak drop-off and pick-up times. It is recommended that staff members be stationed along the length of the student loading zone to facilitate traffic circulation. School staff or volunteers should direct traffic as they approach the loading zone to ensure vehicles pull as far forward as possible and stop to drop off and pick up in the right lane to maintain the traffic flow through the site in the left lane. Staff or volunteers should also ensure that parents do not leave their vehicles unattended in the loading zone while they visit the school and direct parents to load/unload students in a timely manner and then exit the loading zone. Parents that need additional time, for example to complete a phone call or to communicate with students, before leaving the site should be directed to park in the designated on-site parking spaces to ensure the loading zone is available for its intended purpose.

Table ES- 1
Intersection Level of Service Summary under Existing Conditions

#	Intersection	Peak Hour	Count Date	Existing Avg Delay (sec/veh)	Existing LOS	Existing Plus Project without Loop Road Avg Delay (sec/veh)	without Loop Road LOS	without Loop Road Incr. In Crit. Delay (sec)	without Loop Road Incr. In Crit. V/C	with Loop Road Avg Delay (sec/veh)	with Loop Road LOS	with Loop Road Incr. In Crit. Delay	with Loop Road Incr. In Crit. V/C	Existing Plus Project (With Improvements) Avg Delay (sec/veh)	Existing Plus Project (With Improvements) LOS
1	Ralmar Avenue and Newbridge Street/Bay Road [1]	AM	01/01/19	12.8	B	13.7	B	0.9	0.040	--	--	--	--		
	(All-way Stop)	PM	01/01/19	10.8	B	11.0	B	0.3	0.020	--	--	--	--		
2	University Avenue and Bay Road	AM	04/17/19	41.7	D	43.8	D	2.3	0.034	42.8	D	2.3	0.0		
		PM	04/16/19	48.4	D	48.9	D	0.8	0.009	46.9	D	-2.5	-0.037		
3	University Avenue and Bell Street [2]	AM	01/01/19	14.3	B	15.0	B	0.9	0.022	--	--	--	--		
		PM	01/01/19	15.8	B	16.3	B	0.7	0.016	--	--	--	--		
4	US 101 NB On Ramp and Donohoe Street (unsignalized) [3,4,5]	AM	05/21/19	**64.7**	**F**	**75.7**	**F**	n/a	n/a	--	--	--	--	27.4	C
	(Uncontrolled)	PM	05/21/19	10.2	B	9.8	A	n/a	n/a	--	--	--	--	24.5	C
5	University Avenue and Donohoe Street [3]	AM	04/17/19	**107.9**	**F**	**112.7**	**F**	n/a	n/a	--	--	--	--	**89.6**	**F**
		PM	04/16/19	**74.9**	**E**	**77.1**	**E**	n/a	n/a	--	--	--	--	42.3	D
6	US 101 NB Off Ramp/University Plaza driveway and Donohoe Street [3]	AM	05/21/19	49.3	D	**85.2**	**F**	n/a	n/a	--	--	--	--	12.6	B
		PM	05/21/19	**142.6**	**F**	**163.9**	**F**	n/a	n/a	--	--	--	--	35.9	D
7	Cooley Avenue and Donohoe Street [3]	AM	05/21/19	31.8	C	**55.6**	**E**	n/a	n/a	--	--	--	--	18.1	B
		PM	05/21/19	36.6	D	35.0	C	n/a	n/a	--	--	--	--	23.7	C
8	East Bayshore Road and Donohoe Street [3]	AM	05/21/19	32.9	C	**100.5**	**F**	n/a	n/a	--	--	--	--	12.4	B
		PM	05/21/19	38.2	D	34.7	C	n/a	n/a	--	--	--	--	14.8	B
9	University Avenue and US101 SB Ramps [3]	AM	05/21/19	**99.2**	**F**	**92.6**	**F**	n/a	n/a	--	--	--	--	**61.2**	**E**
		PM	05/21/19	**87.4**	**F**	**90.4**	**F**	n/a	n/a	--	--	--	--	46.4	D
10	University Avenue and Woodland Avenue [3]	AM	04/17/19	**66.1**	**E**	**66.4**	**E**	n/a	n/a	--	--	--	--	47.2	D
		PM	04/16/19	**248.0**	**F**	**236.4**	**F**	n/a	n/a	--	--	--	--	**139.2**	**F**
11	University Circle and Woodland Avenue [3]	AM	05/21/19	18.7	B	26.5	C	n/a	n/a	--	--	--	--	13.8	B
		PM	05/21/19	**126.8**	**F**	**119.3**	**F**	n/a	n/a	--	--	--	--	17.7	B
12	Clarke Avenue and Bay Road	AM	05/09/19	16.0	C	18.0	C	2.0	0.052	15.8	C	-0.3	-0.036		
	(All-way Stop)	PM	05/09/19	19.9	C	21.7	C	1.8	0.040	19.5	C	-0.4	0.015		
13	Clarke Avenue and Weeks Street	AM	05/09/19	11.1	B	12.2	B	1.1	0.060	--	--	--	--		
	(All-way Stop)	PM	05/09/19	11.1	B	11.4	B	0.4	0.023	--	--	--	--		
14	Clarke Avenue and Runnymede Street	AM	05/09/19	16.1	C	20.2	C	4.1	0.100	--	--	--	--		
	(All-way Stop)	PM	05/09/19	13.3	B	14.2	B	0.9	0.041	--	--	--	--		
15	Clarke Avenue and Schembri Lane	AM	05/21/19	13.2	B	19.7	C	6.5	0.171	--	--	--	--		
	(All-way Stop)	PM	05/21/19	10.9	B	12.1	B	1.1	0.061	--	--	--	--		

Table ES- 1 (continued)
Intersection Level of Service Summary under Existing Conditions

				Existing		Existing Plus Project without Loop Road				Existing Plus Project with Loop Road				Existing Plus Project (With Improvements)	
#	Intersection	Peak Hour	Count Date	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS
16	Clarke Avenue and Donohoe Street	AM	05/09/19	17.8	C	20.5	C	2.7	0.060	--	--	--	--		
	(All-way Stop)	PM	05/09/19	18.5	C	19.7	C	1.2	0.027	--	--	--	--		
17	Pulgas Avenue and Bay Road	AM	02/28/19	13.8	B	14.1	B	n/a	n/a	--	--	--	--		
	(Two-way Stop [6])	PM	02/28/19	32.4	D	33.4	D	n/a	n/a	--	--	--	--		
18	Pulgas Avenue and Weeks Street [5]	AM	05/09/19	9.5	A	9.6	A	0.1	0.013	--	--	--	--		
	(All-way Stop)	PM	05/09/19	11.6	B	11.8	B	0.1	0.007	--	--	--	--		
19	Pulgas Avenue and Runnymede Street [5]	AM	05/09/19	15.0	C	15.5	C	0.5	0.023	--	--	--	--		
	(All-way Stop)	PM	05/09/19	16.4	C	16.8	C	0.4	0.010	--	--	--	--		
20	Pulgas Avenue and Garden Street	AM	01/22/19	11.2	B	11.7	B	0.5	0.017	--	--	--	--		
	(All-way Stop)	PM	01/22/19	13.5	B	14.0	B	0.5	0.019	--	--	--	--		
21	Pulgas Avenue and O'Connor Street	AM	05/09/19	13.6	B	14.3	B	0.6	0.028	--	--	--	--		
	(All-way Stop)	PM	05/09/19	15.7	C	16.1	C	0.4	0.011	--	--	--	--		

Notes:

Bold indicates a substandard level of service.

Box indicates adverse effect caused by the project.

OVFL indicates that the result is out of software calculation limits

-- indicates that the intersection level of service and delay with the loop road is the same as without the loop road.

1. Traffic counts from 2019 are not available. Thus, 2019 traffic volumes were estimated by applying a 1.2% annual growth factor to 2017 counts.
2. 2019 traffic volumes provided by Kittelson & Associates, Inc. Count date is not available.
3. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).
4. Delay shown is the average delay for the westbound left-turning vehicles, which have to find gaps in the eastbound traffic flow.
5. Average delay and LOS under under existing plus project with improvements reflect signalization.
6. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach. Changes in critical delay and v/c for the entire intersection cannot be calculated (n/a).

Table ES- 2
Intersection Level of Service Summary under Cumulative Conditions

#	Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project without Loop Road				Cumulative Plus Project with Loop Road		Cumulative Plus Project with Loop Road + Other Improvements	
			Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS
1	Ralmar Avenue and Newbridge Street/Bay Road	AM	**72.0**	**F**	**83.2**	**F**	**11.2**	**0.041**	--	--	13.8	B
	(All-way Stop)	PM	**54.4**	**F**	**59.4**	**F**	**5.0**	**0.025**	--	--	8.5	A
2	University Avenue and Bay Road	AM	**70.5**	**E**	**74.4**	**E**	**5.2**	**0.019**	**68.4**	**E**		
		PM	**94.2**	**F**	**94.8**	**F**	**0.6**	**0.002**	**75.7**	**E**		
3	University Avenue and Bell Street	AM	17.9	B	19.7	B	2.3	0.028	--	--		
		PM	20.2	C	21.4	C	1.7	0.018	--	--		
4	US 101 NB On Ramp and Donohoe Street (unsignalized) [1,2,3]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	21.3	C
	(Uncontrolled)	PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	23.5	C
5	University Avenue and Donohoe Street [1]	AM	**169.7**	**F**	**183.7**	**F**	n/a	n/a	--	--	**83.0**	**F**
		PM	**121.5**	**F**	**124.7**	**F**	n/a	n/a	--	--	**95.0**	**F**
6	US 101 NB Off Ramp/University Plaza driveway and Donohoe Street [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	37.4	D
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**247.7**	**F**
7	Cooley Avenue and Donohoe Street [1]	AM	**299.9**	**F**	**OVRL**	**F**	n/a	n/a	--	--	35.4	D
		PM	47.2	D	48.2	D	n/a	n/a	--	--	43.8	D
8	East Bayshore Road and Donohoe Street [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**150.8**	**F**
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**206.6**	**F**
9	University Avenue and US101 SB Ramps [1]	AM	**156.5**	**F**	**169.9**	**F**	n/a	n/a	--	--	**106.4**	**F**
		PM	**138.1**	**F**	**139.0**	**F**	n/a	n/a	--	--	**115.0**	**F**
10	University Avenue and Woodland Avenue [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**111.3**	**F**
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**179.8**	**F**
11	University Circle and Woodland Avenue [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**58.3**	**E**
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**75.6**	**E**
12	Clarke Avenue and Bay Road [4&5]	AM	**115.0**	**F**	**124.9**	**F**	**15.5**	**0.034**	30.9	C		
		PM	28.5	C	29.4	C	1.0	0.008	24.4	C		
13	Clarke Avenue and Weeks Street	AM	33.1	D	**45.5**	**E**	**12.4**	**0.085**	**41.0**	**E**	12.6	B
	(All-way Stop)	PM	17.7	C	19.1	C	1.4	0.029	18.6	C	10.2	B
14	Clarke Avenue and Runnymede Street	AM	**82.1**	**F**	**104.4**	**F**	**22.4**	**0.104**	--	--	20.3	C
	(All-way Stop)	PM	29.6	D	**36.3**	**E**	**6.7**	**0.058**	--	--	18.3	B
15	Clarke Avenue and Schembri Lane	AM	18.9	C	**38.6**	**E**	**19.7**	**0.202**	--	--	14.3	B
	(All-way Stop)	PM	13.3	B	15.5	C	2.2	0.071	--	--	9.2	A

Table ES- 2 (continued)
Intersection Level of Service Summary under Cumulative Conditions

#	Intersection	Peak Hour	Cumulative No Project Avg Delay (sec/veh)	LOS	Cumulative Plus Project without Loop Road Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	with Loop Road Avg Delay (sec/veh)	LOS	Cumulative Plus Project with Loop Road + Other Improvements Avg Delay (sec/veh)	LOS
16	Clarke Avenue and Donohoe Street	AM	**91.1**	**F**	**109.6**	**F**	**18.5**	**0.075**	--	--	29.8	C
	(All-way Stop)	PM	**80.9**	**F**	**87.6**	**F**	**6.8**	**0.029**	--	--	31.7	C
17	Pulgas Avenue and Bay Road [4&5]	AM	**218.9**	**F**	**223.0**	**F**	**4.5**	**0.010**	**221.9**	**F**	**167.7**	**F**
		PM	**OVFL**	**F**	**OVFL**	**F**	**3.9**	**0.009**	**OVFL**	**F**	56.4	**E**
18	Pulgas Avenue and Weeks Street	AM	**214.6**	**F**	**220.7**	**F**	**6.1**	**0.022**	**217.7**	**F**		
	(All-way Stop)	PM	**142.1**	**F**	**144.2**	**F**	**2.1**	**0.004**	**143.5**	**F**		
19	Pulgas Avenue and Runnymede Street [3]	AM	**OVFL**	**F**	**OVFL**	**F**	**7.9**	**0.031**	--	--	33.8	C
	(All-way Stop)	PM	**185.2**	**F**	**187.8**	**F**	**2.6**	**0.012**	--	--	15.4	B
20	Pulgas Avenue and Garden Street [3]	AM	**98.6**	**F**	**113.8**	**F**	**15.2**	**0.062**	--	--	7.4	A
	(All-way Stop)	PM	**84.1**	**F**	**91.5**	**F**	**7.4**	**0.030**	--	--	5.7	A
21	Pulgas Avenue and O'Connor Street [3]	AM	**123.8**	**F**	**133.2**	**F**	**9.4**	**0.037**	--	--	20.7	C
	(All-way Stop)	PM	**150.9**	**F**	**155.9**	**F**	**4.9**	**0.020**	--	--	22.0	C

Notes:

Bold indicates a substandard level of service.

Box indicates adverse effect caused by the project.

OVFL indicates that the result is out of software calculation limits

-- indicates that the intersection level of service and delay with the loop road is the same as without the loop road.

1. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).
2. Under cumulative conditions, delay shown is the average delay for the southbound approach, where vehicles have to find gaps in the eastbound and westbound traffic flow on Donohoe Street.
3. Average delay and LOS under cumulative plus project with Loop Road and other improvements reflects signalization.
4. A new traffic signal is assumed under cumulative conditions based on mitigation measures identified in the Ravenswood/Four Corners TOD Specific Plan DEIR.
5. Bay Road Improvements Project are assumed under cumulative conditions.

1. Introduction

This report presents the results of the transportation analysis conducted for the proposed public charter high school at 1039 and 1063 Garden Street in East Palo Alto, California (see Figure 1). This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development.

Due to shelter in place orders first issued in March 2020, most businesses and schools closed, and people started working at home to the extent possible. While some businesses have subsequently reopened subject to certain restrictions, traffic volumes continue to be substantially below pre-virus conditions. Even when all restrictions are lifted, many businesses will not reopen, and many people will be unemployed. Furthermore, people with health concerns may be reluctant to venture outside their homes. As a result, traffic volumes are expected to remain reduced for many months. Nevertheless, it is not prudent to make planning decisions based on reduced traffic volumes. Thus, to be conservative, this transportation analysis report is based on pre-virus conditions.

The transportation impacts of the project were evaluated following the standards and methodologies established by the City of East Palo Alto. The transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA). As confirmed by a recent court case, level of service (LOS) can no longer be used to identify significant impacts under CEQA. Thus, transportation impacts were assessed based on vehicle miles traveled (VMT).

Although LOS can no longer be used to identify impacts under CEQA, the City has retained the LOS standard set forth in the General Plan, continues to require an assessment of intersection levels of service, and may condition project approvals on improvements needed to maintain the adopted LOS standard and/or other operational issues related to transportation. Thus, the transportation analysis also includes an evaluation of the project's effects on nearby roadway intersections based on the LOS standards set forth in the General Plan.

Project Description

The site is currently occupied by Aspire East Palo Alto Phoenix Academy, a charter school that currently serves middle and high school students. The project proposes to change the school to a public charter high school and increase total enrollment by 230 students over four years, for a total of 650 enrolled students and 44 staff members. Vehicle access to the campus would continue to be provided via two existing driveways on Garden Street. The western driveway on Garden Street is an inbound only driveway, and the eastern driveway on Garden Street is a full-access driveway. The western driveway provides access to the west parking



Figure 1
Site Location and Study Intersections

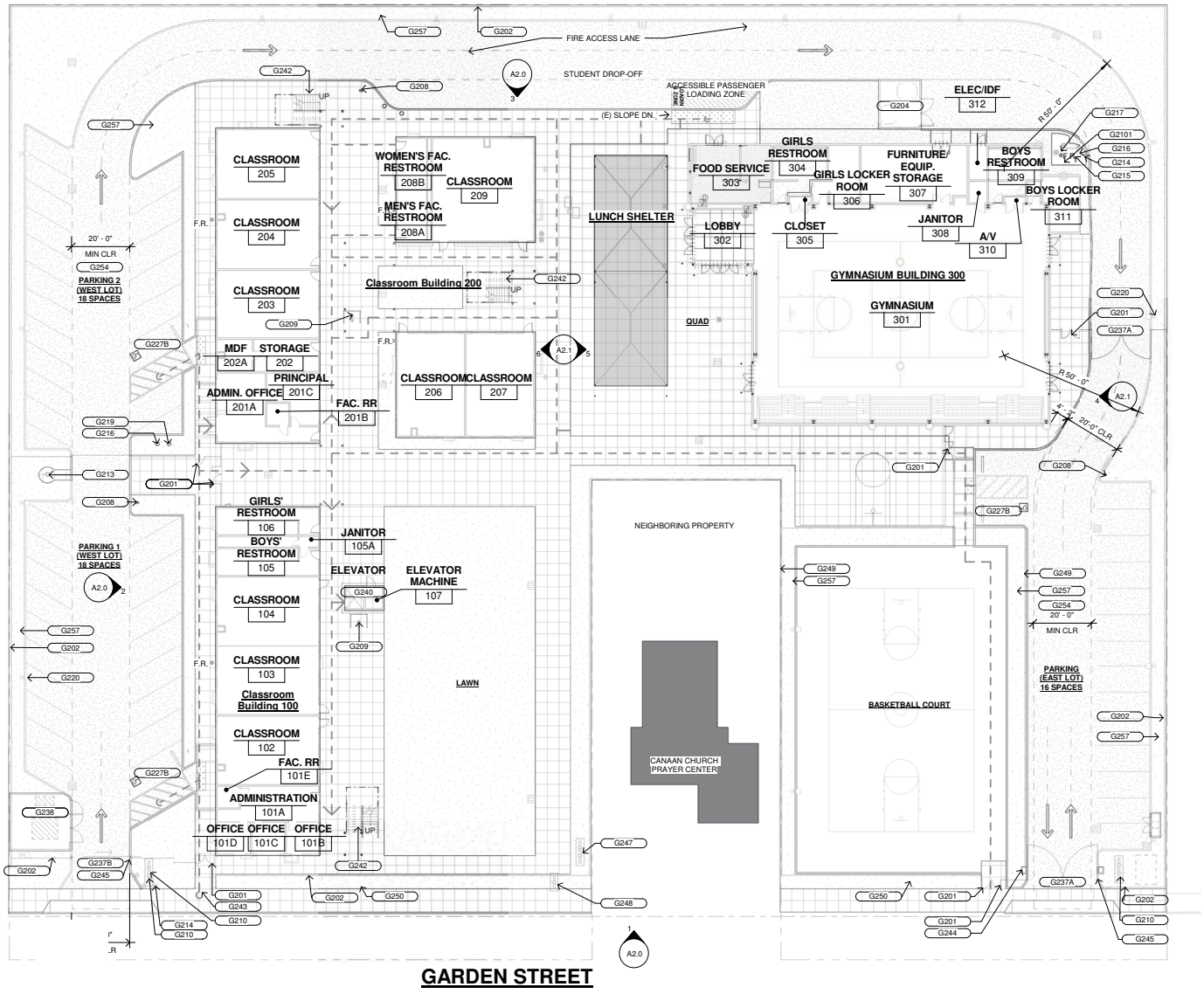


Figure 2
Site Plan

NORTH
Not to Scale

lot and the one-way loop to the student drop off zone, while the eastern driveway provides access to the east parking lot.

Transportation Policies

In adherence with State of California Senate Bill 743 (SB 743), the City of East Palo Alto has adopted a new Transportation Analysis Policy. The policy establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT) instead of intersection level of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. All new projects are required to analyze transportation impacts using the VMT metric. The new Transportation Analysis Policy took effect on July 7, 2020.

The new CEQA guidelines serve to implement two key state goals:

- Ensure that environmental impacts of traffic (e.g. noise, air pollution, safety) are properly addressed and mitigated, and
- Promote public health and the reduction in greenhouse gases.

City of East Palo Alto planning and policy documents that apply to the VMT Policy are described below.

- The VMT Policy is aligned with the following *City Council Strategic Priorities*
  #4: Improve Public Facilities and Infrastructure, and
  #6: Create a Healthy and Safe Community.
- The VMT Policy is also consistent with the following goals and community indicators set forth in the *City of East Palo Alto General Plan 2035:*
  - Maintain an Urban form and land use pattern that enhances the quality of life and meets the community's vision for its future (LU-1)
  - Foster the creation of complete, multimodal streets (T-2)
  - Update the transportation performance measures (T-7.2)
  - Adopt transportation demand management and roadway system efficiency strategies (T-8)
  - 20% Reduction in single occupancy commuting by 2035 (Table 12-12: Indicators)
  - 20% Bicycle/pedestrian mode share to work by 2035 (Table 12-12: Indicators)
  - 15% Bicycle/pedestrian mode share to school by 2035 (Table 12-12: Indicators)
  - Decrease per capita VMT (Table 12-12: Indicators)
- The *City of East Palo Alto's Climate Action Plan,* adopted in 2011, set forth an emissions reduction goal of 15 percent below 2005 levels by 2020. More recently, the California Air Resources Board adopted an updated SB 375 emissions target for the San Francisco Bay Area of 19 percent below 2005 levels by 2035. In East Palo Alto, 14 percent of emissions stem from travel on local roads and 48 percent of emissions stem from state highway travel. The Draft VMT Policy would lead to a reduction in VMT and thereby reduce vehicle emissions.

CEQA Transportation Analysis Scope

The City of East Palo Alto's Transportation Analysis Policy establishes procedures for determining project impacts on Vehicle Miles Traveled (VMT) based on the project description and characteristics. VMT is the total miles of travel by personal motor vehicles a project is expected to generate in a day. VMT measures the full distance of vehicle trips with one end within the project.

Screening for VMT Analysis

A development project may be "screened out" if the use or size support a presumption that, if analyzed, the project's impact under VMT would be less than significant. Thus, a screened project would not be required to conduct a detailed VMT analysis to quantify the project's VMT and would not need to implement trip reduction measures or multimodal improvements to mitigate a significant impact on VMT. Projects that do not meet the screening criteria are "screened in" and must complete a detailed analysis of VMT produced by the project.

Based on the City's Transportation Analysis Policy, it is assumed that projects generating fewer than 110 daily trips would cause a less-than-significant impact. The proposed charter high school would have 650 students at full enrollment and would generate more than 110 daily trips. The project does not meet the screening criteria and therefore requires a detailed CEQA transportation analysis.

VMT Analysis Methodology

Methodology

In the City of East Palo Alto, a project's VMT is compared to the applicable threshold of significance established based on the citywide average VMT. As set forth in the City's VMT Policy, the proposed charter high school was treated as office for the purpose of VMT screening and analysis. The significance threshold for office developments is 15 percent below the existing citywide average home-based work trip VMT per employee. Due to the City's small size and lack of rail transit service, the project-generated VMT for all office projects is assumed to be equal to the citywide average home-based work trip VMT per employee. Project-generated VMT may be adjusted from the Citywide average as appropriate to account for Transportation Demand Management (TDM) measures proposed by the project or multi-modal transportation facilities constructed by the project (e.g. a new sidewalk to fill an existing gap or a new trail connection).

For the proposed charter high school, home-based school trips by students and home-based work trips by employees were combined for the purpose of the VMT analysis. Thus, the average VMT per student/employee at the proposed school was assumed to equal the Citywide average home-based work trip VMT per employee. The baseline VMT per student/employee was then adjusted to account for TDM measures that are proposed by KIPP.

Thresholds of Significance

The VMT impact threshold for office developments is 15 percent below the existing citywide average home-based work trip VMT per employee. Using the C/CAG travel demand model, the established citywide average home-based work trip daily VMT is 21.93 miles per employee for existing employment uses. Thus, the significant impact threshold is 18.64 miles per employee, which is 15 percent below the existing citywide average home-based work trip VMT per employee. This threshold was applied to the average daily VMT per student/employee at the proposed KIPP school.

Projects that have a significant impact on VMT must either modify the project description to reduce the impact or implement feasible mitigation measures that will avoid or substantially lessen such significant impacts. Mitigation measures may include multimodal transportation improvements and/or TDM measures to reduce single-occupant vehicle trips.

Local Transportation Analysis Scope

A Local Transportation Analysis (LTA) was conducted to demonstrate conformance with multimodal transportation system strategies, goals, and policies in the General Plan and to address adverse effects

on the transportation system. The LTA supplements the VMT analysis by identifying potential adverse operational effects that may arise due to a new development, as well as evaluating the effects of a new development on site access, circulation, and other safety-related elements in the proximate area of the project.

The LTA satisfies the requirements of the City of East Palo Alto, and the City/County Association of Governments of San Mateo County (C/CAG). C/CAG administers the San Mateo County Congestion Management Program (CMP). Potential adverse effects associated with the proposed project were evaluated at key intersections in the vicinity of the site. An analysis of AM and PM peak hour traffic conditions during weekdays at the following 21 study intersections in the vicinity of the project site was conducted.

1. Ralmar Avenue and Newbridge Street/Bay Road (unsignalized)
2. University Avenue and Bay Road
3. University Avenue and Bell Street
4. US 101 NB On Ramp and Donohoe Street (unsignalized)
5. University Avenue and Donohoe Street
6. US 101 NB Off Ramp/University Plaza driveway and Donohoe Street
7. Cooley Avenue and Donohoe Street
8. East Bayshore Road and Donohoe Street
9. University Avenue and US 101 SB Off-Ramp
10. University Avenue and Woodland Avenue
11. University Circle and Woodland Avenue
12. Clarke Avenue and Bay Road (unsignalized)
13. Clarke Avenue and Weeks Street (unsignalized)
14. Clarke Avenue and Runnymede Street (unsignalized)
15. Clarke Avenue and Schembri Lane (unsignalized)
16. Clarke Avenue and Donohoe Street (unsignalized)
17. Pulgas Avenue and Bay Road (unsignalized)
18. Pulgas Avenue and Weeks Street (unsignalized)
19. Pulgas Avenue and Runnymede Street (unsignalized)
20. Pulgas Avenue and Garden Street (unsignalized)
21. Pulgas Avenue and O'Conner Street (unsignalized)

An analysis of freeway segments and freeway ramps is not required since the project is expected to generate a negligible number of trips on area freeways.

The proposed school will open at 8:00 AM. All students will start at 8:30 AM from Monday to Friday. Classes will end at 4:23 PM on Monday and Tuesday. On Wednesday, classes will end at 2:45 PM followed by a staff meeting starting at 3:00 PM and ending at 4:45PM. Classes will end at 3:12 PM and 4:08 PM on Thursday and Friday, respectively. Office hours/reflection will be scheduled afterwards and will end at 4:00 PM on Thursday and at 4:56 PM on Friday. Traffic conditions at the intersections were analyzed for the weekday AM and PM peak hours of traffic. The AM peak hour of traffic is between 7:00 and 9:00 AM, and the PM peak hour is between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average day.

Traffic conditions were evaluated for the following scenarios:

Scenario 1: *Existing Conditions.* Existing traffic conditions are based on traffic counts conducted in 2019 for all but one study intersection. At the intersection of Ralmar Avenue and Newbridge Street/Bay Road, the latest count data available is from the year 2017. Due to COVID-19 and regional shelter-in-place orders, traffic volumes are substantially lower than they were prior to the pandemic. Thus, new traffic counts were not collected and instead a growth rate of 1.2% per year was applied to the year 2017 traffic counts

at Ralmar Avenue and Newbridge Street/Bay Road to estimate existing pre-virus traffic volumes.

Scenario 2: *Existing Plus Project Conditions*. Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the proposed project. Two existing plus project scenarios were evaluated to assess traffic conditions both with and without the loop road identified in the Ravenswood Four Corners TOD Specific Plan.

Scenario 3: *2040 Cumulative Conditions.* Cumulative conditions represent future traffic volumes with all foreseeable development expected to occur by the year 2040 on the future transportation network. Cumulative traffic volumes were estimated by applying a growth factor (1.2 percent per year) for 21 years to existing (2019) traffic volumes to account for regional growth and adding trips associated with the development allowed under the Ravenswood Specific Plan and other approved and pending development projects in the City of East Palo Alto other than the proposed project.

Scenario 4: *2040 Cumulative Plus Project Conditions.* Cumulative plus project conditions reflect the projected traffic volumes with implementation of the project. Projected peak-hour traffic volumes were estimated by adding to cumulative traffic volumes the additional traffic generated by the project. Cumulative plus project conditions were evaluated relative to cumulative no project conditions in order to determine potential adverse effects. The planned loop road was evaluated as a possible improvement measure along with other improvements.

Intersection Operations Analysis Methodology

This section presents the methods used to determine the traffic conditions at the study intersections and the potential adverse operational effects due to the project. It includes descriptions of the data requirements, the analysis methodologies, the applicable intersection level of service standards, and the criteria used to determine adverse effects on intersection operations.

Data Requirements

The data required for the analysis were obtained from new traffic counts, the City of East Palo Alto and field observations. The following data were collected from these sources:

- Existing traffic, bicycle, and pedestrian volumes
- Existing intersection lane configurations
- Existing signal timing and phasing
- A list of approved and pending projects

Analysis Methodologies and Level of Service Standards

Traffic conditions were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or forced-flow conditions with extreme delays. The City of East Palo Alto level of service standard for all intersections is LOS D or better.

Microscopic Simulation of Study Intersections

Due to the close proximity of selected study intersections, eight study intersections in the vicinity of the US 101/University Avenue interchange were analyzed using the Synchro/SimTraffic 9 software. Unlike macroscopic models of isolated intersection operations such as the *Highway Capacity Manual*

methodology, SimTraffic is a microscopic model that measures the full effect of queuing and blocking. This software also provides a visual animation of the traffic operations. Simulated delay values were correlated to the level of service definitions set forth in the *2000 Highway Capacity Manual* (HCM) methodology.

Macroscopic Analysis of Signalized Intersections

The remaining signalized study intersections were evaluated using the TRAFFIX software based on the 2000 HCM methodology. The *2000 HCM* evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Table 1 shows the level of service definitions for signalized intersections.

Table 1
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major-contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p10-16.

Unsignalized Intersections

Peak-hour levels of motor vehicle delay at 12 unsignalized study intersections were estimated using the method described in Chapter 17 of the *2000 Highway Capacity Manual*. With this method, operations are defined by the average control delay per vehicle (measured in seconds) for each movement that must yield the right-of-way. At side-street controlled intersections (two-way or one-way stop control), the control delay (and LOS) is reported for the approach with the highest delay. For all-way stop-controlled intersections, the average delay (and LOS) for all movements is reported. Table 2

summarizes the relationship between average control delay per vehicle and LOS for unsignalized intersections.

Table 2
Unsignalized Intersection Level of Service Definition Based on Average Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p17-2.

City of East Palo Alto Definition of Adverse Intersection Effects

The City of East Palo Alto assesses motor vehicle delays using a level of service standard of LOS D for intersections. Specifically, an adverse effect on intersection operations would occur at an intersection if for any peak hour the project would result in any of the following:

At a signalized intersection, the project is considered to have an adverse effect if it:

a) Causes operations to degrade from LOS D (or better) to LOS E or F; or

b) Exacerbates LOS E or F conditions by both increasing critical movement delay by four or more seconds and increasing volume-to-capacity ratio (V/C ratio) by 0.01 at an intersection evaluated using the TRAFFIX software; or

c) Exacerbates LOS E or F conditions by increasing the average intersection delay by four or more seconds at an intersection evaluated using the SimTraffic software; or

d) Increases the V/C ratio by > 0.01 at an intersection that exhibits unacceptable operations, even if the calculated LOS is acceptable; or

e) Causes planned future intersections to operate at LOS E or F.

At an unsignalized intersection, the project is considered to have an adverse effect if it:

a) Causes operations to degrade from LOS D or better to LOS E or F; or

b) Exacerbates LOS E or F conditions by increasing control delay by five or more seconds; and

c) Causes volumes under project conditions to exceed the Caltrans Peak-Hour Volume Warrant Criteria.

Queuing Analysis

The queuing analysis is used to determine the appropriate storage lengths for the high demand turn lanes where the project would add substantial number of trips to these movements. Vehicle queues

were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$\text{Probability } (X=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

Probability (X=n) = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = Average number of vehicles in queue per lane (vehicles per hour per lane/signal cycles per hour)

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

The 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles; or a queue length longer than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn storage pocket designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time. The 95th percentile queue length is also known as the "design queue length."

Report Organization

This report has a total of four chapters. Chapter 2 describes existing conditions, including the existing roadway network, transit service, bicycle and pedestrian facilities, and intersection operations. Chapter 3 describes the CEQA transportation analysis, including the project VMT impact analysis and mitigation measures to reduce the VMT impact. Chapter 4 describes the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effect on the transportation system, and an analysis of other transportation issues including site access and circulation, parking, transit services, bicycle and pedestrian facilities, and vehicle queueing.

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2. Existing Conditions

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities. Existing conditions reflect traffic conditions in 2019 prior to the COVID-19 pandemic. The effect of project traffic on existing intersection operations is analyzed as part of the Local Transportation Analysis (Chapter 4).

Existing Roadway Network

Regional access to the project study area is provided by US 101 and SR 84. These facilities are described below.

US 101 is a north-south freeway in the vicinity of the site. US 101 extends northward through San Francisco and southward through San Jose. Within East Palo Alto, US 101 has three general-purpose travel lanes, one high-occupancy vehicle (HOV) lane, and one auxiliary lane in each direction. Access to and from the project study area is provided via a full-access interchange at University Avenue.

Bayfront Expressway (SR 84) is a six-lane expressway that extends along the northern edge of East Palo Alto. SR 84 extends eastward across the Dumbarton Bridge into Alameda County and westward through San Mateo County. Bayfront Expressway provides access to the project study area via University Avenue.

Local access to the project site is provided via University Avenue, Bay Road, Donohoe Street, Clarke Avenue, Pulgas Avenue, and Garden Street. These facilities are described below.

University Avenue is a north-south arterial that extends from Stanford University in Palo Alto to Bayfront Expressway just north of the City of East Palo Alto. Within East Palo Alto, University Avenue is a four-lane divided roadway with no on-street parking. South of Bay Road, University Avenue has continuous sidewalks on both sides of the street. Between Bay Road and Purdue Avenue, University Avenue has a sidewalk on only one side of the street. The posted speed limit on University Avenue is 25 mph.

Bay Road is a four-lane east-west collector street within the project vicinity beginning at East Bayshore Road continuing to Pulgas Avenue. East of Pulgas Avenue, Bay Road is a two lane-road that terminates at Cooley Landing and the San Francisco Bay. Bay Road has continuous sidewalks with on-street parking on both sides of the street west of Pulgas Avenue. However, east of Pulgas Avenue, Bay Road has no sidewalks. The posted speed limit on Bay Road is 25 mph.

Donohoe Street is an east-west street the extends from East Bayshore Road in the west to Clarke Avenue in the east. Its classification varies from a local street to a major thoroughfare, while the cross section varies from a two-lane street with on-street parking to a divided six lane street. Donohoe Street

has continuous sidewalks on both sides of the street east of University Avenue. Donohoe Street has a prima facie speed limit of 25 mph.

Clarke Avenue is a two-lane north-south local collector street within the vicinity of the site extending from East Bayshore Road in the south to Bay Road to the north, where it becomes Illinois Street. Clarke Avenue has continuous sidewalks with on-street parking on both sides of the street. The posted speed limit on Clarke Avenue is 25 mph. Clarke Street would provide access to the project site via its intersection with Garden Street.

Pulgas Avenue is a two-lane north-south collector within the vicinity of the site extending from East Bayshore Road in the south to just north of Bay Road. On street parking is provided along both sides of the street. Sidewalks are provided along both sides of the street between Oakes Street/Gaillardia Way and Bay Road. Access to the project site is provided via its intersection with Garden Street.

Garden Street is a two-lane east-west local road that begins at Clarke Avenue in the west and terminates with a cul-de-sac in the east, east of Pulgas Avenue. On street parking is allowed along both sides of the street. A sidewalk is provided along the north side of the street along the project frontage and between the project site and Pulgas Avenue. Sidewalks are provided along both sides of the street east of Pulgas Avenue. Garden Street provides direct vehicular access to the project site via the two existing driveways.

Existing Bicycle Facilities

Bicycle facilities in the vicinity of the project site include bike/pedestrian paths, bike lanes, and bike routes. Bike/pedestrian paths (Class I facilities) are off-street paths with exclusive right-of-way for non-motorized transportation used for commuting as well as recreation. Bike lanes (Class II facilities) are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes (Class III) are existing rights-of-way that accommodate bicycles but are not separate from the existing travel lanes. The existing bicycle facilities within the study area are described below and are shown on Figure 3.

The Bay Trail, a Class I bike and pedestrian path, runs along the west boundary of the Ravenswood Regional Open Space Preserve and Baylands Nature Preserve areas, which is about 0.3 mile east of the project site. The Bay Trail connects to Bay Road and several local neighborhood streets, including Weeks Street, Runnymede Street, and Cypress Street (see Figure 3). There is also a short paved mixed-use trail known as the Rail Spur that extends from Bay Road to Pulgas Avenue.

Class II bicycle lanes exist on Bay Road from Newbridge Street to Clarke Avenue, and on University Avenue starting just north of Donohoe Street and extending to the location of the future loop road. Between the future loop road and Bayfront Expressway, there is a bike lane on the west (southbound) side of University Avenue and a separate bikeway on the east side of University Avenue. These bicycle facilities are not well-connected, and do not provide immediate access to the project site. No bicycle facilities are provided on the other local and neighborhood streets surrounding the project site. However, due to low traffic volumes, the streets immediately adjacent the project site are conducive to bicycle traffic.

Hexagon conducted bicycle counts at the study intersections and determined that bicycle volumes at all study intersections are quite low. All bicycle counts are included in Appendix A.



Figure 3
Existing Bicycle Facilities

NORTH
Not to Scale

Existing Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site, sidewalks exist along both sides of Clarke Avenue, Pulgas Avenue, Bay Road, University Avenue and Garden Street east of Pulgas Avenue. Between Clarke Avenue and Pulgas Avenue, Garden Street has no sidewalk on the south side of the street, and on the north side of the street, a sidewalk is present only along the project frontage and extending eastward to Pulgas Avenue. Crosswalks with pedestrian signal heads and push buttons are provided at all approaches of the nearest signalized intersections (University Avenue/Bay Road, University Avenue/Runnymede Street, and University Avenue/Bell Street).

In the immediate vicinity of the project, high visibility crosswalks are provided along the west and south legs of the Clarke Avenue/Garden Street and Pulgas Avenue/Garden Street intersections. The intersection of Pulgas Avenue and Bay Road has a crosswalk on only the west approach while the intersection of Pulgas Avenue and Runnymede Street has crosswalks on all legs except the north approach. There are no crosswalks available at the following three unsignalized study intersections:

- Pulgas Avenue and Weeks Street
- Clarke Avenue and Weeks Street
- Clarke Avenue and Runnymede Street

Hexagon conducted pedestrian counts at each study intersection. The greatest pedestrian volumes were observed at the intersection of University Avenue and Bay Road, where 138 and 108 pedestrians were counted during the AM and PM peak hours, respectively. The study intersection with the next highest pedestrian volumes is Clarke Avenue and Donohoe Street, which had 88 pedestrians during the AM peak hour and 75 pedestrians during the PM peak hour. All pedestrian counts are included in Appendix A.

Existing Transit Services

Existing transit services in the study area are provided by the San Mateo County Transit District (Samtrans). The nearest bus stop is located on Pulgas Avenue at Garden Street, approximately 400 feet from the project site, and is served by SamTrans Route 280. The next closest bus stops are located on Clarke Avenue at Bell Street, approximately 1,000 feet from the project site, which is served by SamTrans Route 296. SamTrans bus services and the locations of the nearest bus stops are described below and shown on Figure 4.

SamTrans Route 280 operates on Bay Road and Pulgas Avenue within the study area, providing service between the Stanford Shopping Center and East Palo Alto. The line operates with approximately 60-minute headways during the AM and PM peak periods. The bus stop closest to the project site is at the intersection of Pulgas Avenue and Garden Street.

SamTrans Route 296 operates on Bay Road, Pulgas Avenue, and Clarke Avenue within the study area, providing service between the Redwood City Caltrain Station and East Palo Alto. The line operates with 20-minute headways during the AM and PM peak periods. The bus stop closest to the project site is at the intersection of Clarke Avenue and Bell Street.

Existing Lane Configurations

The existing intersection lane configurations were obtained from field observations and previous studies (see Figure 5).



Figure 4
Existing Transit Services

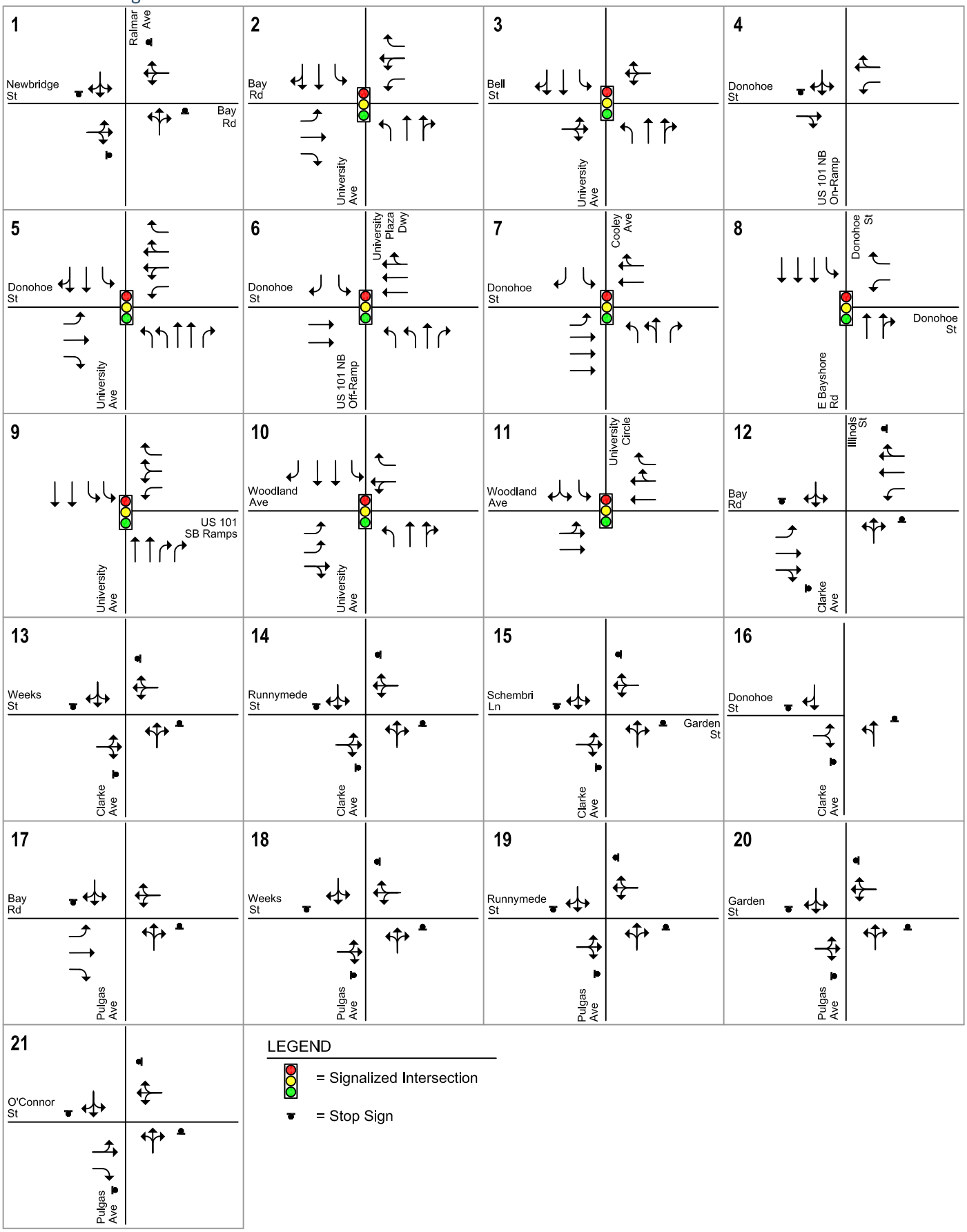


Figure 9
Project Trip Assignment

Observed Traffic Conditions

Traffic conditions were observed in the field in order to identify existing operational deficiencies and to confirm the accuracy of calculated intersection levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect existing traffic conditions.

The field observations were conducted in 2019 prior to the COVID-19 pandemic, which matches the time frame when existing counts were conducted. Many of the signalized intersections on the University Avenue and Donohoe Street corridors in the study area were observed to experience congested traffic conditions during the commute AM and PM peak periods with queues that often extend through upstream intersections. Significant congestion also was observed along the Pulgas Avenue and Clark Avenue corridors as commuters seek routes to avoid the congestion on University Avenue. Field visits revealed the following observations at study intersections prior to the COVID-19 pandemic:

#2 University Avenue and Bay Road

This intersection operates without any significant operational issues during the AM peak hour.

During the PM peak hour, queues on northbound University Avenue extend from Bayfront Expressway through the University/Bay intersection to Bell Street. Spillback from the downstream intersections impedes traffic flow and causes vehicles on the northbound approach at the University/Bay intersection to wait through several signal cycles to clear the intersection.

#4 US 101 Northbound On-Ramp/University Plaza Phase II driveway (future) and Donohoe Street (unsignalized)

This intersection currently is not controlled on the Donohoe Street approaches. However, westbound vehicles that want to turn left onto the on ramp must wait for an adequate gap in eastbound traffic flow before proceeding. Field observations show that the westbound left-turn queue extends into the upstream intersection of University Avenue/Donohoe Street during the AM peak hour due to insufficient number and length of gaps in the eastbound traffic flow. Vehicle queues in the right lane on eastbound Donohoe Street constantly extend from University Avenue beyond this intersection to Euclid Avenue. The queue spillback from the University/Donohoe intersection exacerbates the delays for eastbound Donohoe traffic attempting to make right turns onto the northbound US 101 on-ramp.

During the PM peak hour, westbound left-turn traffic on Donohoe Street can easily turn onto the US 101 northbound on ramp because of the relatively low traffic volume on eastbound Donohoe Street. However, the westbound through traffic experiences significant delays due to spillback from the downstream intersection at Euclid Avenue. Queues for the westbound through traffic on Donohoe Street intermittently extend to University Avenue.

#5 University Avenue and Donohoe Street

During the AM peak hour, the southbound through movement on University Avenue fails to clear in one signal cycle. Vehicle queues on the southbound approach constantly extend beyond the upstream intersection at Bell Street. Due to heavy congestion on southbound University Avenue, vehicle queues from the downstream intersection at the US 101 southbound ramps constantly extend to this intersection. As a result, all traffic movements bound for southbound University Avenue (i.e. the eastbound right turn, the westbound left turn, and the southbound through) experience extended delays of more than one signal cycle.

During the PM peak hour, heavy congestion and excessive delays were observed on the northbound University Avenue and westbound Donohoe Street approaches. Long queues were observed in the

northbound through lanes on University Avenue that lead towards the Dumbarton Bridge. Westbound vehicle queues from the Euclid Avenue/Donohoe Street intersection extend through the University Avenue/Donohoe Street intersection and constrained the westbound through and northbound left-turn movements. Queues for these movements frequently do not clear during the respective green phase due to downstream congestion. The northbound left-turn movement experiences imbalanced lane usage. Most of the northbound left-turning traffic was observed to use the outer left-turn lane because the other turn lane becomes a trap lane to the northbound US 101 on ramp.

#6 US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

During the AM peak hour, vehicle queues extend on westbound Donohoe Street from the downstream intersection at University Avenue beyond the US 101 northbound off ramp, intermittently reaching the intersection at Donohoe Street and Cooley Avenue. As a result, it occasionally takes more than one signal cycle for the westbound through traffic to clear this intersection. An imbalance in the lane utilization was observed for the three westbound through lanes. The innermost through lane is consistently more congested than the other lanes. Because of the high demand for westbound left turns and through traffic at University Avenue, most of the vehicles on westbound Donohoe Street were observed to be in the innermost through lane at the US 101 northbound off ramp intersection.

During the PM peak hour, there are significant queues on westbound Donohoe Street similar to that of the AM peak hour. Congestion for westbound traffic is primarily due to queues spilling back from the downstream intersection at University Avenue and Donohoe Street. The westbound congestion also results in long queues for the northbound left-turn movement on the US 101 northbound off ramp, causing vehicles to wait through multiple signal cycles to clear the intersection. Vehicles from the off-ramp making the northbound left-turn movement occasionally block the intersection, causing traffic exiting from the University Plaza Phase I site to wait for more than one cycle to clear the intersection. The queues on the US 101 northbound off ramp were also observed to spillover to the mainline US 101 freeway lanes for a considerable amount of time during the PM peak hour. Vehicles making a right turn movement and seeking to immediately turn left at the downstream intersection at Cooley Avenue also intermittently block the eastbound through lanes on Donohoe Street.

#7 Cooley Avenue and Donohoe Street

During the AM peak hour, westbound through queues on Donohoe Street occasionally were observed to extend from the downstream intersection at University past Cooley Avenue. However, all turn movements clear the intersection in one cycle length.

During the PM peak hour, queues on westbound Donohoe Street extend from the downstream intersection at University Avenue past the northbound US 101 off ramp and into the intersection at Cooley Avenue. Due to the close proximity of the traffic signals, queues on westbound Donohoe Street intermittently spill back into the upstream intersection at East Bayshore Road. However, the westbound queues generally clear within one signal cycle. Also, the eastbound left-turn movement frequently overflows the turn pocket and spills into the adjacent eastbound through lane and through the upstream intersection at the northbound US 101 off ramp. The allocated green time for the eastbound left turn movement is generally adequate in serving the demand but the turn pocket starts filling up quickly from the beginning of the red phase.

#8 East Bayshore Road and Donohoe Street

During the AM peak hour, traffic on the northbound East Bayshore approach to Donohoe Street is delayed due to spillback from downstream intersections.

During the PM peak hour, the westbound queues at the downstream intersection of Cooley Avenue and Donohoe Street spill back through the East Bayshore Road/Donohoe Street intersection, causing delay for northbound traffic on East Bayshore Road. However, the northbound approach clears in one signal

cycle. The left-turn queues on southbound Donohoe Street fill the turn pocket storage, but they do not spillover to the through lane and clear in one signal cycle.

#9 University Avenue and US 101 Southbound Ramps

During the AM peak hour, the southbound University Avenue through movement experiences considerable delay due to congestion extending from the downstream intersection at University Avenue and Woodland Avenue. The southbound left-turn queue on University Avenue leading to the US 101 southbound on-ramp intermittently spills over into the through lane but usually clears in one signal cycle.

During the PM peak hour, vehicular queues on northbound University Avenue extend from the downstream intersection at Donohoe Street past the upstream intersection at Woodland Avenue.

#10 University Avenue and Woodland Avenue

This intersection operates with split phasing for the eastbound and westbound approaches on Woodland Avenue.

During the AM peak hour, long vehicle queues on the westbound approach spill back into the upstream intersection at Scofield Avenue but the queues generally clear the intersection in one signal cycle. Due to heavy traffic on southbound University Avenue, vehicle queues constantly extend beyond the upstream intersection at the US 101 southbound ramps and beyond.

During the PM peak hour, queues on northbound University Avenue extend approximately 1,700 feet to Lincoln Avenue. Long queues also were observed on the eastbound approach on Woodland Avenue, extending past the University Circle driveway to Euclid Avenue. Observations show that traffic flow on the eastbound Woodland Avenue approach is impeded by queues on northbound University Avenue that extend from the downstream US 101 southbound ramps intersection to Woodland Avenue. Between 4:00 PM and 5:00 PM, only a small number of vehicles were observed turning from eastbound Woodland Avenue onto northbound University Avenue during each signal cycle. It took one to two cycles for eastbound traffic to clear the intersection and vehicle queues on the eastbound Woodland Avenue extend beyond Euclid Avenue on several occasions. Vehicle queuing on eastbound Woodland Avenue improves gradually after 5:00 PM and the eastbound approach is able to clear within one cycle. The westbound approach (Woodland Avenue/Scofield Avenue) was also observed to have long queues with congestion extending onto Capitol Avenue. Traffic on the westbound approach intermittently takes more than one cycle to clear the intersection.

#11 University Circle and Woodland Avenue

Queues on eastbound Woodland Avenue spill back from the nearby downstream intersection at University Avenue during the AM peak hour. However, queues on the eastbound approach at the Woodland Avenue/University Circle intersection generally clear within one cycle. All other movements at the intersection operate adequately.

During the PM peak hour, the eastbound queues on Woodland Avenue spill back from the downstream intersection at University Avenue similar to that of the AM peak hour. The congestion on eastbound Woodland Avenue continues through the upstream intersections of Manhattan Avenue and Euclid Avenue. However, there are generally adequate green times allocated under the current signal timing scheme that allow the eastbound queues to clear within one cycle.

#12 Clarke Avenue and Bay Road

The intersection operates acceptably without any operational issues during the AM peak hour.

During the PM peak hour, queues on northbound Clarke Avenue extend approximately 1,200 feet to Runnymede Street.

#13 Clarke Avenue and Weeks Street

The intersection operates acceptably without any operational issues during the AM peak hour.

During the PM peak hour, the queue on northbound Clarke Avenue spills back from the intersection at Bay Road past Weeks Street to Runnymede Street blocking traffic on the stop-controlled Weeks Street approaches. However, the spillback along Clarke Avenue does not cause a backup on Weeks Street since the traffic volumes on Weeks Street are quite low and because queued vehicles on Clarke Avenue frequently allow side street vehicles to pass through or join the queue.

#16 Clarke Avenue and Donohoe Street

During the AM peak hour, the intersection generally operates well without any operational issues.

While this intersection generally operates acceptably, the eastbound approach experiences lengthy queues (up to approximately 400 feet) that extend beyond Salas Court at times during the PM peak hour.

#17 Pulgas Avenue and Bay Road

The intersection operates acceptably without any operational issues during the AM peak hour.

During the PM peak hour, queues on northbound Pulgas Avenue extend approximately 500 feet upstream but do not affect the intersection of Pulgas Avenue and Weeks Street.

3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT threshold of significance, the project-level VMT impact analysis results, mitigation measures to reduce a VMT impact, and the cumulative transportation impact analysis used to determine consistency with the City's General Plan.

Project-Level VMT Impact Analysis

Project VMT

The project-level impact analysis under CEQA uses the VMT metric to evaluate a project's transportation impacts by comparing against the VMT thresholds of significance as established in the Transportation Analysis Policy.

In the City of East Palo Alto, a project's VMT is compared to the applicable threshold of significance established based on the citywide average VMT. Based on the City's Transportation Analysis Policy, the proposed charter high school would be treated as office for the purpose of VMT screening and analysis. The significance threshold for office developments is equal to 15 percent below the existing citywide average home-based work trip VMT per employee. Due to the City's small size and lack of rail transit service, the baseline daily VMT for all office projects is assumed to be equal to the citywide average home-based work trip VMT (21.93 miles per employee) regardless of location. Therefore, it was assumed that the KIPP's project generated VMT per employee/student without any Transportation Demand Management (TDM) measures would be the same as a typical office in the city. This is a conservative assumption because the percentage of KIPP students that would reside within the City of East Palo Alto is greater than the share of East Palo Alto office workers that also live within East Palo Alto, resulting in shorter trip lengths for students than for office workers.

The project proposes to implement the following TDM measures that would reduce daily VMT below the citywide average of 21.93 miles per employee/student:

- **School Busses:** The school would provide bus service for students living in selected neighborhoods outside of walking distance from the school. Initially, KIPP would provide 50 seats in the first year of bus operation at KIPP Esperanza. Bus service would be provided to students who reside in or near the unincorporated North Fair Oaks community and nearby Redwood City with a bus stop at or near KIPP Excelencia Community Prep at 2950 Fair Oaks Avenue. Student bus service would expand each year until full enrollment when 4 busses would operate during both the AM and PM peak hours. Additional bus routes and stops would be developed based on the residence locations of students. In total, 200 students out of the total enrollment of 650 students are expected to ride the school busses, which would equate to a 28 percent reduction in the total vehicle trips [(200 bus riders-8 daily bus trips)/(650 students + 44 staff)].

- **Commute Assistance Center:** The school would provide an on-site Commute Assistance Center to provide students and families with transit and commute information. The center would be open during school hours and would feature computer kiosks as well as desks and chairs with transit information and a directory of commute and transit information numbers. The school's front office staff would also be knowledgeable about commuting in the area and able to support students and families as needed.
- **Bicycle Racks:** The school would provide bicycle racks for student and staff use.
- **Subsidized Transit Passes:** The school would provide transit subsidies to students and staff.

With the proposed TDM measures, the daily VMT generated by the proposed school employees and students would be at least 28 percent below the existing Citywide average home-based work/home-based school VMT of 21.93 miles per employee/student. The expected high percentage of students that would walk or bike to school would further reduce the VMT. Thus, the school is expected to comply with the City's VMT policy.

Cumulative Impact Analysis

A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. Since the proposed school project is consistent with the City's General Plan and would have a less-than significant impact on VMT with the TDM program, the project would have a less than significant cumulative impact. To account for the cumulative effect of lots of small developments, traffic operational analysis (Chapter 4) was conducted to assess the combined effects of all projects (past, current, and probable future projects of all sizes) on intersection levels of service.

4.
Local Transportation Analysis

This chapter describes the local transportation analysis including the method by which project traffic is estimated, any adverse effects to intersection level of service caused by the project under existing and cumulative conditions, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of the study intersections and to identify potential adverse effects due to the addition of project traffic. Information required for the intersection operations analysis related to project trip generation, trip distribution, and trip assignment are presented in this section. The study intersections are evaluated based on the City's intersection analysis methodology and standards in determining potential adverse operational effects due to the project, as described in Chapter 1.

Project Trip Estimates

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

Trip Generation

The proposed KIPP charter high school is unlike most other high schools in that few or none of the KIPP high school students are expected to drive themselves to school. Data from KIPP's other high schools shows that on average, only about three percent of their students drive. Furthermore, KIPP may implement a policy prohibiting students from driving themselves to school. Because middle school students cannot drive, the trip generation characteristics of the proposed KIPP high school are expected to more closely match that of a charter middle school than that of a typical high school. Thus, the trip generation rates for the proposed school were based on trip generation surveys that Hexagon Transportation Consultants, Inc. conducted at four public charter middle schools in San Jose in the years 2016 and 2017. The observed trip generation rates are summarized in Table 3. In addition to the lack of student drivers, these charter middle schools are considered comparable to the proposed KIPP charter high school because they are all located within an economically disadvantaged area, are open to students throughout the school district, are tuition-free, have an extended school day, and include

before and after school programs. The trip generation rates calculated from the surveys at local charter middle schools are higher than the middle school and high school trip rates published in the Institute of Transportation Engineers *Trip Generation Manual, 10th Edition*.

The magnitude of traffic generated by the proposed school was estimated by multiplying the average trip generation rate observed at local middle schools by the proposed enrollment of 650 students minus the 200 students expected to be transported by school busses. This rate is conservative as it does not account for high school students who may drive. Allowing student drivers would reduce the vehicle trip generation because student drivers generate at most two one-way vehicle trips per student per day (one inbound in the morning and one outbound in the afternoon), compared to students who are dropped off by parents, which generate as many as four one-way vehicle trips per student per day (one inbound and one outbound trip in the morning and two more one-way trips in the afternoon).

Table 3
School Trip Generation Survey Summary

		Trip Rate (vehicle trips per student)			
				PM	
Land Use	School Schedule	Daily[7]	AM Peak Hour	School(2-4) Peak Hour	Commute(4-6) Peak Hour[8]
KIPP Heritage Middle School[1]	7:45AM - 4:00PM	*5.69*	1.55	n/a	0.51
KIPP Heartwood & Prize Middle Schools[2]	7:40AM - 4:00 PM (Heartwood) / 7:30AM - 4:15PM (Prize)	*4.30*	1.17	n/a	0.69
ACE Franklin McKinley Middle School[3]	7:40AM - 4:00PM	*2.42*	0.66	n/a	0.41
ACE Empower Academy Middle School[4]	8:00AM - 2:45PM	*4.22*	1.15	0.65	0.34
	Middle School Average	**4.16**	**1.13**	**n/a**	**0.54**
ITE Published (Mix of Private and Public Schools, Varying Levels of School Bus Transportation, Traditional School Day)					
Middle School/Junior High School[5]		2.13	0.58	0.35	0.17
High School[6]		2.03	0.52	0.33	0.14

[1] Based on Hexagon Transportation Consultants survey conducted at KIPP Heritage Academy in May 2016.

[2] Based on Hexagon Transportation Consultants survey conducted at KIPP Prize and Heartwood Middle Schools in January 2017.

[3] Based on Hexagon Transportation Consultants survey conducted at ACE Franklin McKinley Middle School in April, 2016.

[4] Based on Hexagon Transportation Consultants survey conducted at ACE Empower Academy Middle School in April, 2016. PM Commute hour rate not included in average since school ends before 4PM.

[5] Source: Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition,* Middle School/Junior High School (ITE Land Use #522).

[6] Source: Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition,* High School (ITE Land Use #530).

[7] Observed daily trip rate was estimated by multiplying the AM peak hour rate by the ratio of daily trip rate to the AM trip rate available in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition.*

[8] PM peak hour trip generation at KIPP schools and ACE Franklin McKinley reflects 4 PM - 5 PM, which is when peak project traffic and peak background traffic overlap.

The proposed project site would have fewer than 50 full-time employees, therefore the project would be not subject to the transportation demand management (TDM) requirements expressed in the City's Code (Municipal Code Section 10.32.040). As shown in Table 4, the proposed school is expected to generate a total of 1,060 daily vehicle trips with 291 trips (154 in and 137 out) during the AM peak hour and 140 trips (59 in and 81 out) during the PM peak hour.

Table 4
Project Trip Generation Estimates

		Daily		AM Peak Hour						PM Peak Hour					
					Split		Trip				Split		Trip		
Land Use	Size	Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Land Use															
KIPP Charter High School[1,2]	450 students	4.159	1,872	1.13	52%	48%	266	243	510	0.54	43%	57%	105	137	242
Bus Trips[3]	4 busses	--	8	--	--	--	4	0	4	--	--	--	0	4	4
Gross Project Trips			**1,880**				**270**	**243**	**513**				**105**	**141**	**246**
Existing Land Use															
EPAPA Middle School[1]	197 students	4.159	819	1.133	52%	48%	116	106	223	0.537	43%	57%	46	60	106
Net Project Trips			**1,060**				**154**	**137**	**291**				**59**	**81**	**140**

Notes:
1. Average rate of trip generations from KIPP Heritage Middle School, KIPP Heartwood & Prize Middle Schools, ACE Franklin MicKinley Middle School, and ACE Empower Academy Middle School were used.
2. The number of students that would be bussed to school were subtracted from the trip generation. KIPP expects 200-250 students to utilize the busses. Of the 650 enrolled students, Hexagon assumed 200 students would use the bus, to be conservative.
3. The school is expected to provide 4 busses in the AM peak hour and 4 busses during the PM peak hour.

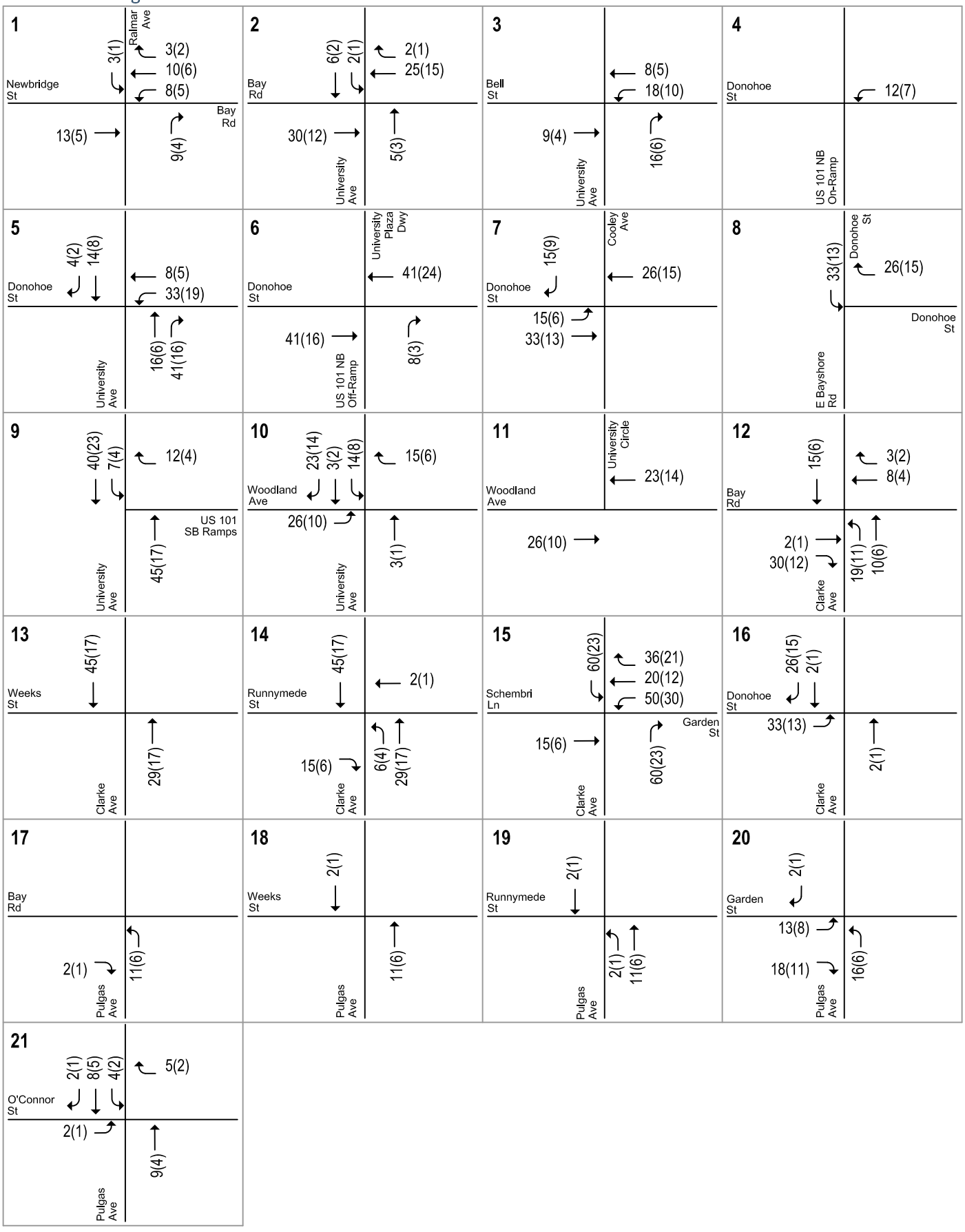
Trip Distribution and Assignment

The project trip distribution was estimated based on the student residence data provided by KIPP (see Figure 6). The school would serve students who live within the City of East Palo Alto, Redwood City, unincorporated North Fair Oaks community, and the Belle Haven neighborhood of City of Menlo Park. The school may attract a small percentage of vehicle trips from outside these areas due to teacher and staff trips. The distribution assumes that the school buses would serve 100 percent of students from North Fair Oaks and Redwood City. There would be approximately 26 percent of all students living within one-mile radius of the proposed school resulting in approximately 24 percent of all students who would use an alternative mode of transportation (i.e. bike or walk).

The peak-hour trips generated by the project were assigned to the roadway network in accordance with the project trip distribution patterns (see Figure 7).



Figure 6
Project Trip Distribution Pattern



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XX(XX) = AM(PM) Peak-Hour Trips

Figure 7
Project Trip Assignment

HEXAGON

NORTH
Not to Scale

Future Transportation Network

Existing Plus Project Conditions

The Ravenswood Four Corners TOD Specific Plan identifies the construction of a new "loop road", which would extend northward from the current terminus of Demeter Street and then turn westward to connect to University Avenue at the northern edge of the Ravenswood Specific Plan area (see Figure 1). Because it is uncertain when the planned Loop Road will be constructed, the analysis of existing plus project conditions was conducted both with and without the loop road.

The transportation network and intersection lane configurations under existing plus project conditions are assumed to be the same as that described under existing conditions. A second scenario was analyzed to evaluate existing plus project conditions with the planned loop road. The loop road would only be used by trips traveling to and from SR 84 East, as it would not have any connections to the adjacent University Village neighborhood. Given that a small percentage of the project trips would be going to and from SR 84 East, all the project trips to and from SR 84 East were assumed to use Univeristy Avenue and no project trips are expected to ues the loop road.

Cumulative Transportation Network

The transportation network under cumulative conditions is assumed to include the Bay Road Improvements Project, which will affect the lane geometry at the following two study intersections:

Clarke Avenue and Bay Road: add an exclusive left-turn lane on the northbound Clark Avenue approach.

Pulgas Avenue and Bay Road: remove the exclusive right-turn lane on the eastbound Bay Road approach and convert the through lane to a shared through/right-turn lane to accommodate bicycle and pedestrian improvements on Bay Road.

The transportation network under cumulative conditions is also assumed to include the following improvements identified in the Ravenswood/4 Corners TOD Specific Plan Environmental Impact Report (February 22, 2013):

University Avenue and Bay Road (Improvement TRA-CUM-4): add an exclusive northbound right-turn lane and a second northbound left-turn lane on University Avenue, add a second westbound left-turn lane on Bay Road, add a second southbound left-turn lane on University Avenue, and modify signal phasing.

University Avenue and Donohoe Street (Improvement TRA-CUM-5): add an exclusive southbound right-turn lane on University Avenue.

Clarke Avenue and Bay Road (Improvement TRA-CUM-8): Install a new traffic signal. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation will be provided.

Pulgas Avenue and Bay Road (Improvement TRA-CUM-10): Install a new traffic signal. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation will be provided.

The planned loop road, which was identified in the Ravenswood/4 Corners TOD Specific Plan DEIR, was not assumed as part of the cumulative transportation network, but rather was evaluated as a possible improvement along with other improvements.

The City of East Palo Alto is also working with Caltrans on a US 101/University Avenue interchange improvement project that would include a second pedestrian/bicycle overcrossing and modifications to the freeway off ramps. However, the funding for these improvements has not yet been secured so they are not assumed to be complete under cumulative conditions.

Cumulative Plus Project Conditions

The transportation network and intersection lane configurations under cumulative plus project conditions are assumed to be the same as that described under cumulative conditions.

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing traffic volumes for all but one study intersection were obtained from manual peak-hour turning-movement counts conducted in 2019 while nearby schools were in session (see Figure 8). At the intersection of Ralmar Avenue and Newbridge Street/Bay Road, the latest count data available is from the year 2017. Due to COVID-19 and regional shelter-in-place orders, traffic volumes are substantially lower than they were prior to the pandemic. Thus, new traffic counts were not collected and instead a growth rate of 1.2% per year was applied to the year 2017 traffic counts at the intersection of Ralmar Avenue and Newbridge Street/Bay Road to estimate existing pre-virus traffic volumes. The traffic count data (including pedestrian and bicycle count data) are included in Appendix A.

Diversion of the Existing Traffic Due to the Planned Loop Road

The planned loop road is expected to cause some of the existing westbound right-turn and southbound left-turn traffic at the University Avenue/Bay Road intersection to instead use the Loop Road, thereby reducing the traffic at some study intersections on Bay Road. Figure 9 shows the affected study intersections, the existing traffic volumes, and the estimate of diverted traffic at each intersection. The loop road is not expected to affect the traffic volumes at any of the other study intersections.

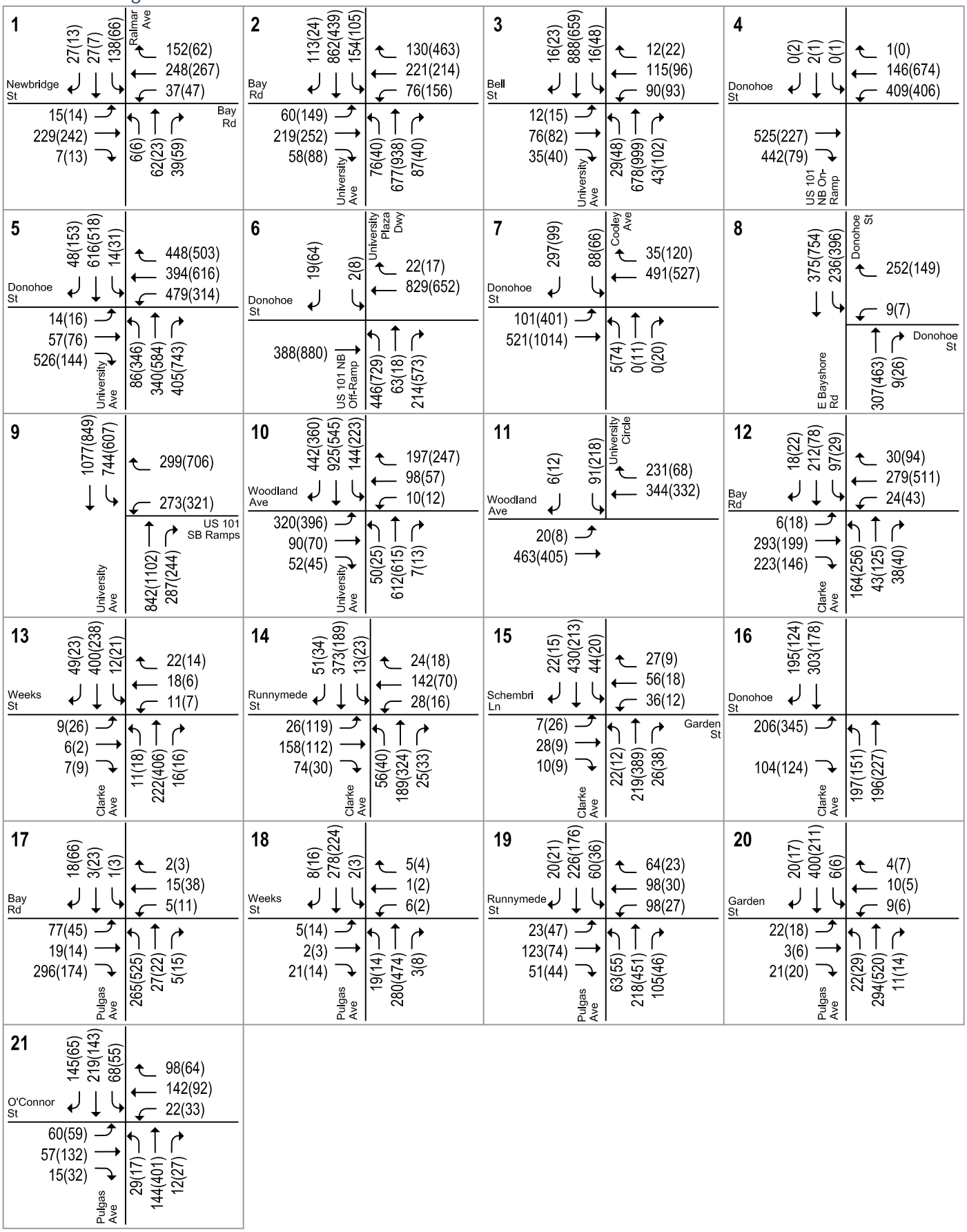
Existing Plus Project Traffic Volumes

Existing plus project conditions were evaluated without and with the planned loop road. For the existing plus project without loop road scenario, the project trips shown on Figure 7 were added to the existing traffic volumes to derive the existing plus project without loop road traffic volumes (see Figure 10). For the existing plus project with loop road scenario, the project trips shown on Figure 7 were added to the adjusted existing traffic volumes due to the loop road to derive the existing plus project with loop road traffic volumes (see Figure 11).

Cumulative Traffic Volumes

Cumulative (year 2040) traffic volumes were estimated by applying an annual growth factor (1.2 percent per year) for 21 years to existing 2019 traffic volumes to account for regional growth and then adding trips associated with the development allowed under the Ravenswood Specific Plan and other approved and pending projects in the City of East Palo Alto other than the proposed project (see Figure 12). The regional growth factor of 1.2 percent per year was developed by comparing the existing (Year 2019) traffic volumes and the cumulative with project condition (Year 2040) traffic forecasts presented in the East Palo Alto General Plan Update Traffic Impact Analysis. The following proposed and approved developments are all located within the Ravenswood/4 Corners TOD Specific Plan Area:

- 2020 Bay Road office development (proposed),
- 965 Weeks Street residential development (proposed),
- 2398 University Avenue retail project (proposed),
- 760 Weeks Street, Weeks Street Townhomes (proposed),
- 1201 Runnymede Street residential development (proposed)
- 1950 Bay Road East Palo Alto Art Center (approved), and
- 2519 & 2535 Pulgas Avenue office development (proposed)



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XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 8
Existing Traffic Volumes

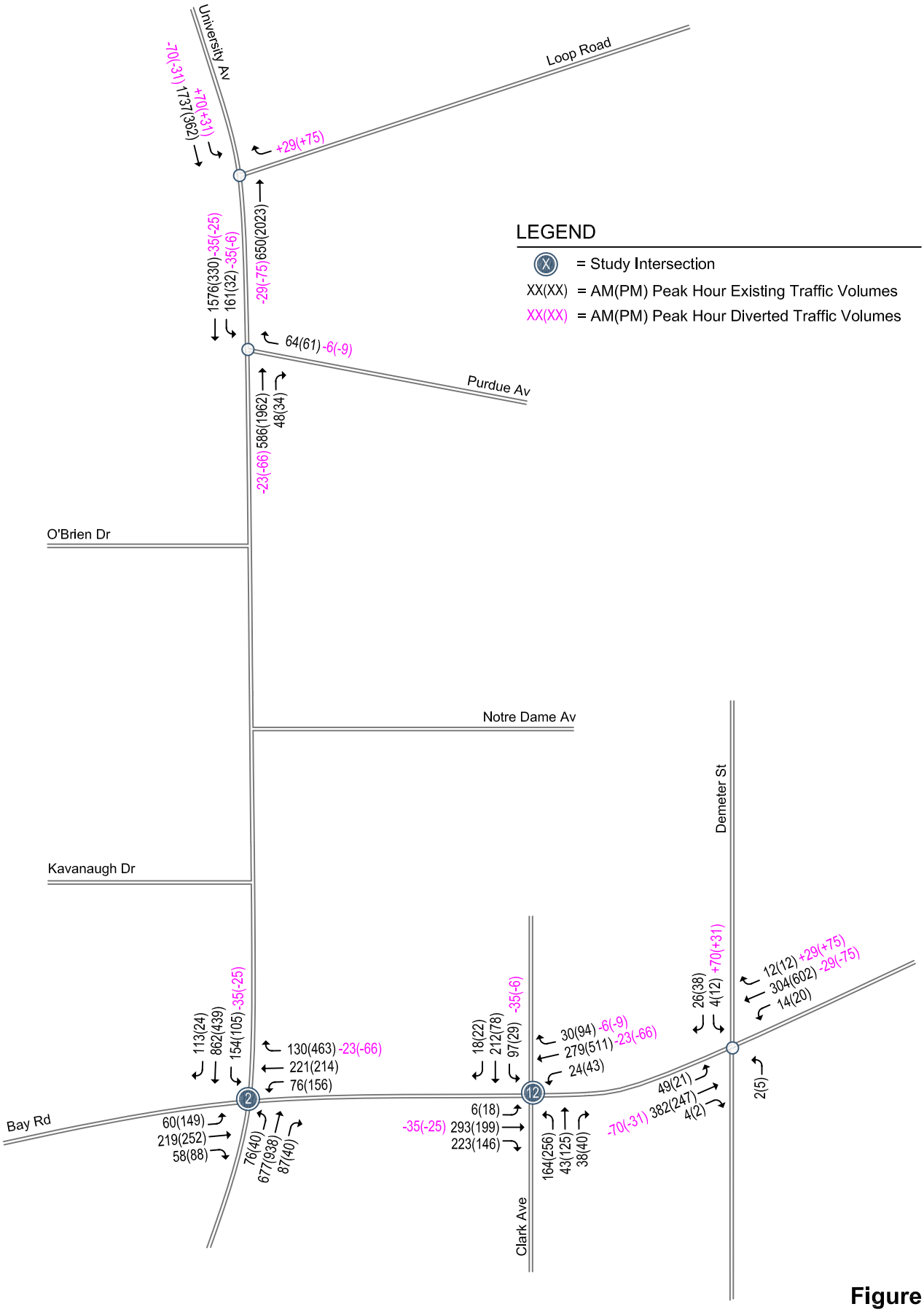
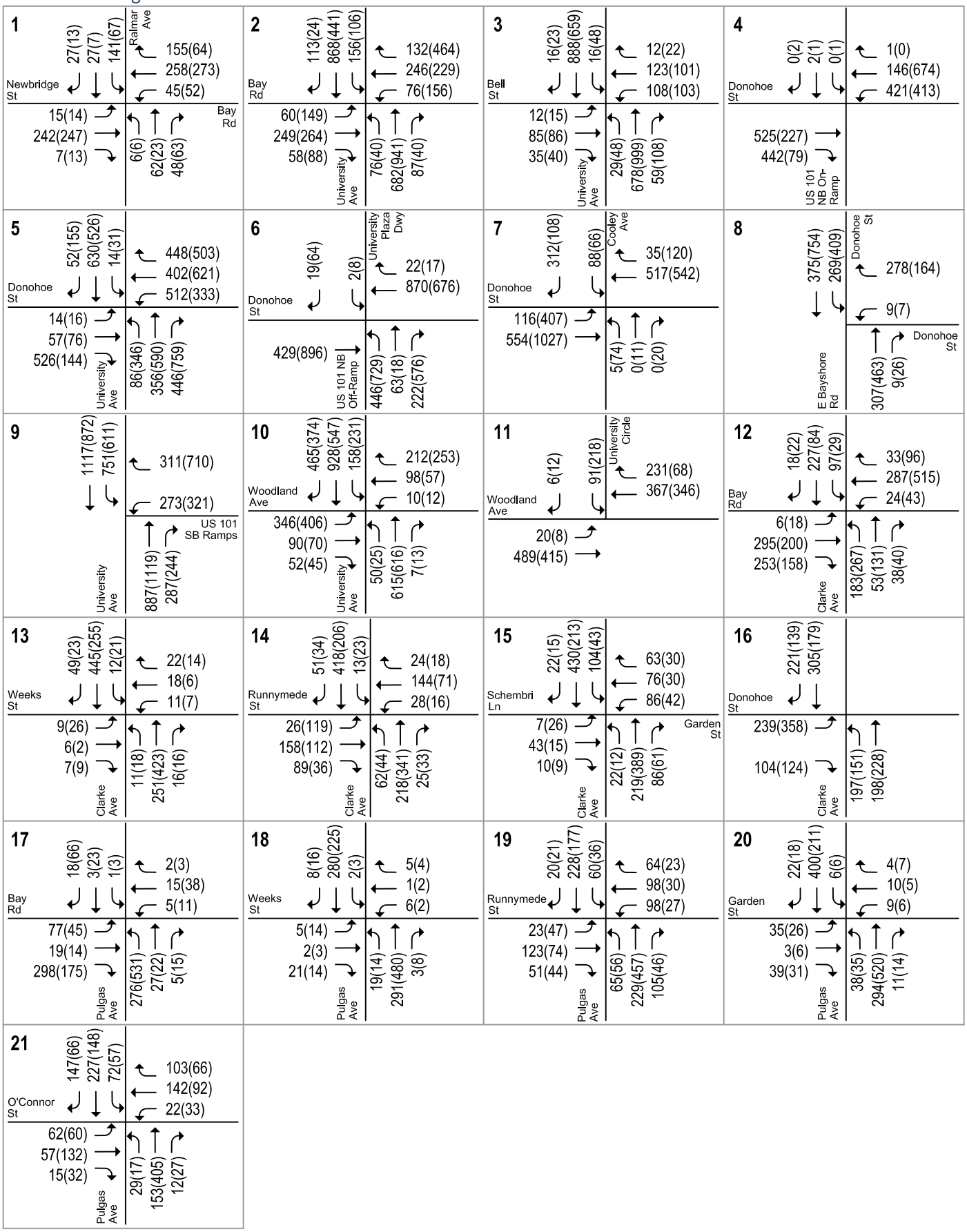


Figure 9
Diverted Existing Traffic Due to the Planned Loop Road



LEGEND

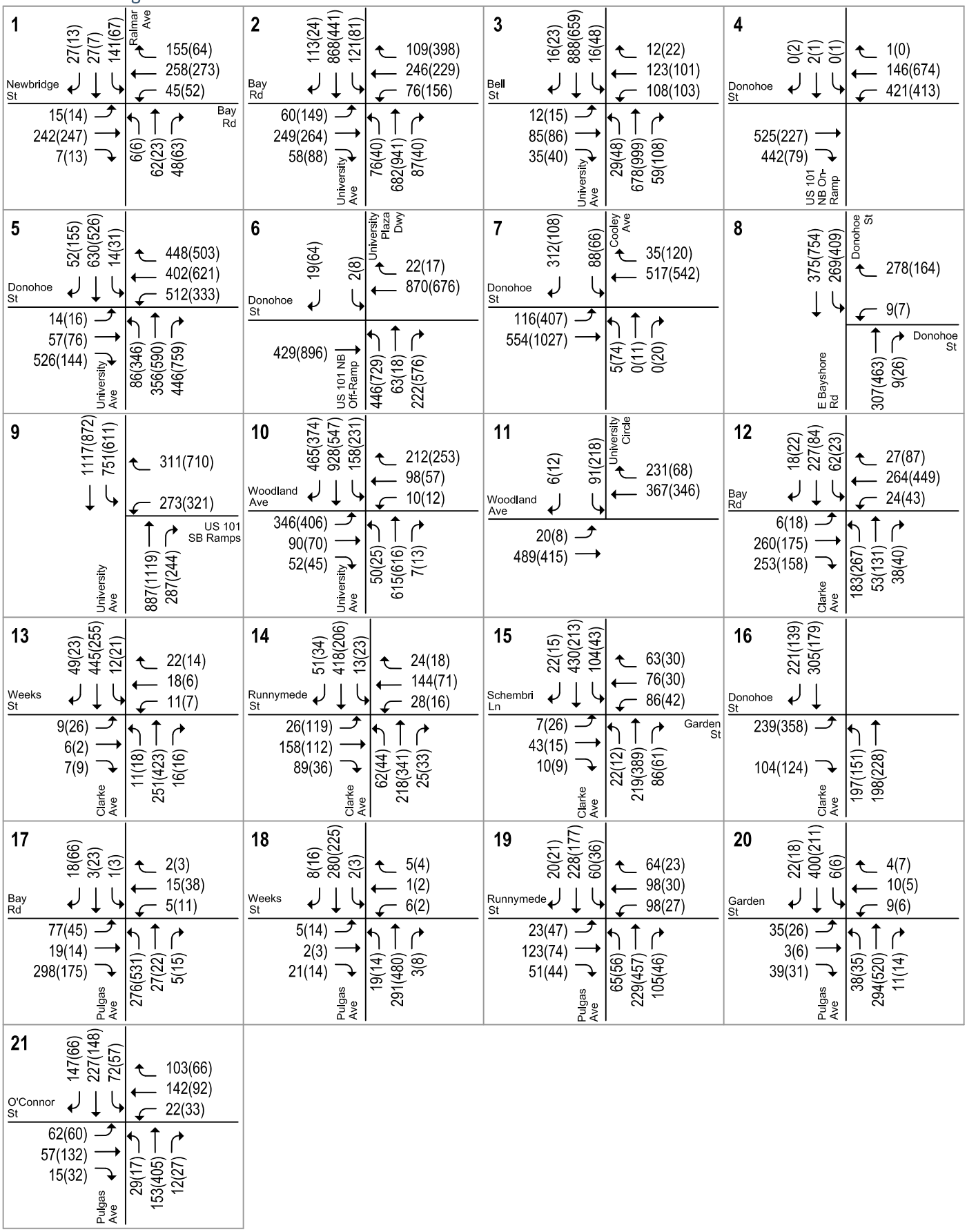
XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 10

Existing Plus Project Without Loop Road Traffic Volumes

HEXAGON

NORTH
Not to Scale



LEGEND

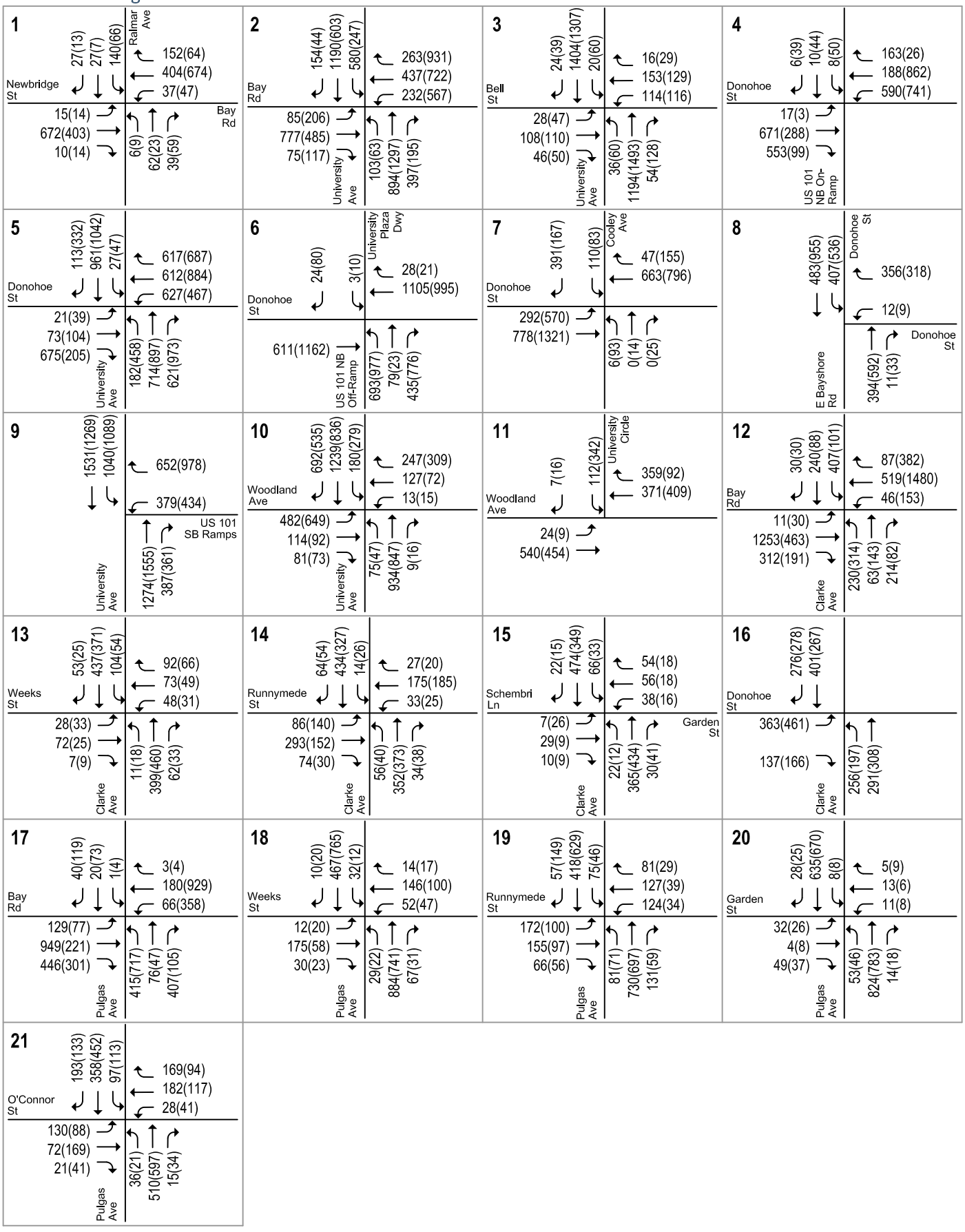
XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 11

Existing Plus Project With Loop Road Traffic Volumes

HEXAGON

NORTH
Not to Scale



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 12
Cumulative No Project Traffic Volumes

The development assumptions for the Ravenswood Specific Plan includes the trips generated by all of the above-listed projects. The following two projects located within the Ravenswood Specific Plan area are not covered by the development assumed under the Specific Plan:

- 1200 Weeks Street, The Primary School (approved)
- 2398 University Avenue hotel project (proposed)

Thus, the trips generated by The Primary School and the hotel were added on top of the trips generated by the assumed Specific Plan developments.

Cumulative conditions also include the trips associated with the following notable developments anticipated outside the Ravenswood Specific Plan area:

- 2111 University Avenue, University Plaza Phase 2 office development (approved),
- 1900 University Avenue, University Circle Phase 2 office development (proposed),
- 2031 Euclid Avenue – 2001 Manhattan Avenue, Woodland Park residential development (proposed),
- 1805 East Bayshore Road, Light Tree Apartment Redevelopment (approved),
- 927 Runnymede Street, Maid Residence (proposed),
- 1062 Runnymede Street, 10 lot subdivision (proposed),
- 990 Garden Street, 10 lot subdivision (proposed),
- 1788 Bayshore Road office development (proposed), and
- 812 Green Street, 5 lot subdivision (proposed).

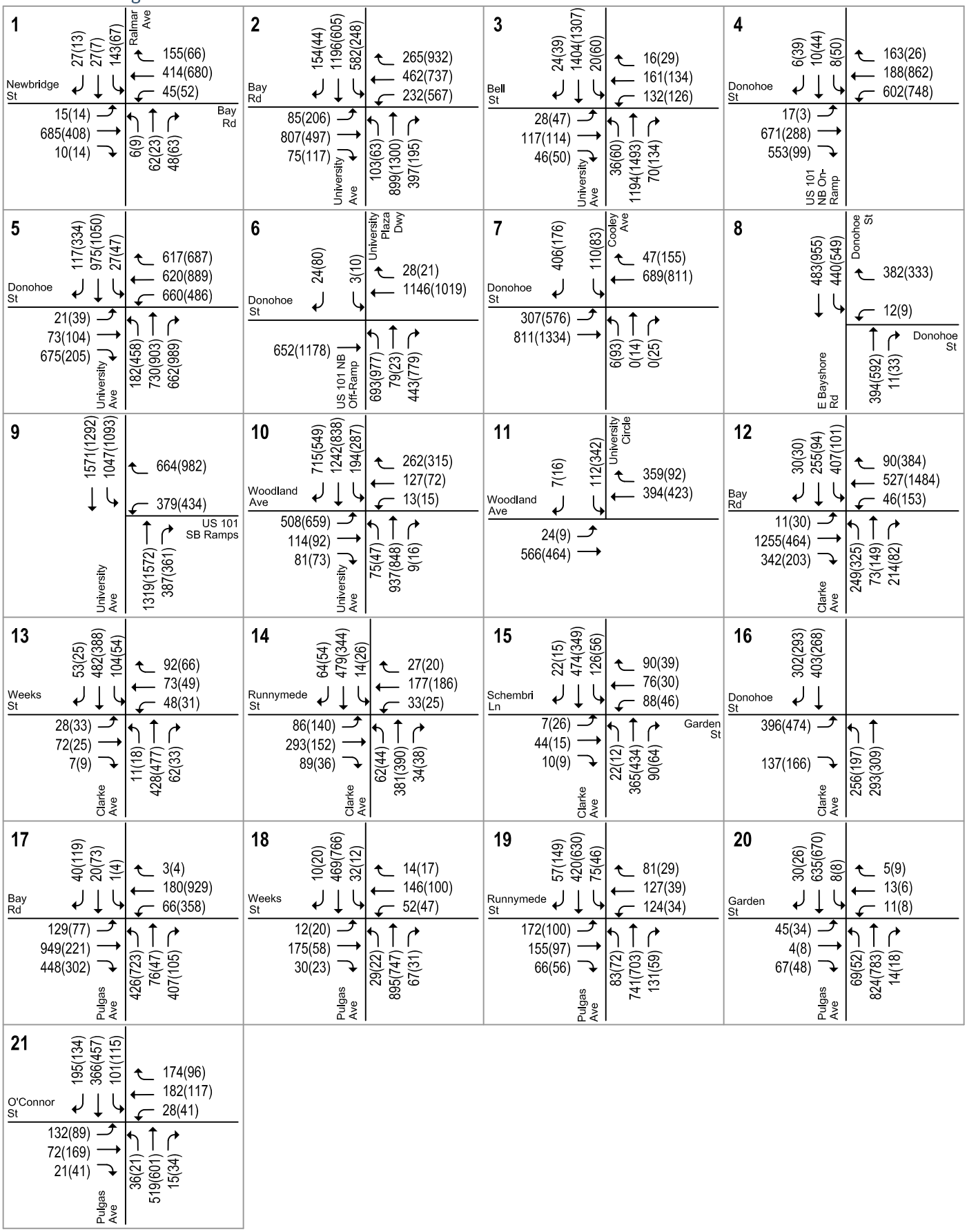
The regional growth factor was applied only to intersections along the following major roadways, which are expected to experience regional traffic growth not associated with developments in East Palo Alto:

- University Avenue
- East Bayshore Road
- Donohoe Street
- US 101 freeway ramps
- Pulgas Avenue

Although Pulgas Avenue is considered a collector street, it experiences a high volume of cut-through traffic indicating it serves as an alternative route for University Avenue. Therefore, Pulgas Avenue is assumed to experience the same regional traffic growth as other major roadways in the study area. Similarly, Donohoe Street and East Bayshore Road serve regional trips accessing US 101 or diverted from the freeway. The growth factor accounts for the additional traffic that would be generated by approved and proposed developments in Menlo Park, Palo Alto, and other communities.

Cumulative Plus Project Traffic Volumes

Cumulative plus project peak-hour traffic volumes were estimated by adding to cumulative traffic volumes the additional traffic generated by the project. The cumulative plus project traffic volumes are shown in Figure 13. As previously stated, cumulative conditions do not assume completion of the loop road. The planned loop road was evaluated as a potential improvement since it would divert traffic away from several affected intersections. Cumulative plus project conditions with the loop road reflect the diversion of existing traffic as well as the reassignment of trips generated by developments within the Ravenswood / 4 Corners TOD Specific Plan area. Figure 14 presents cumulative plus project traffic volumes with the loop road.

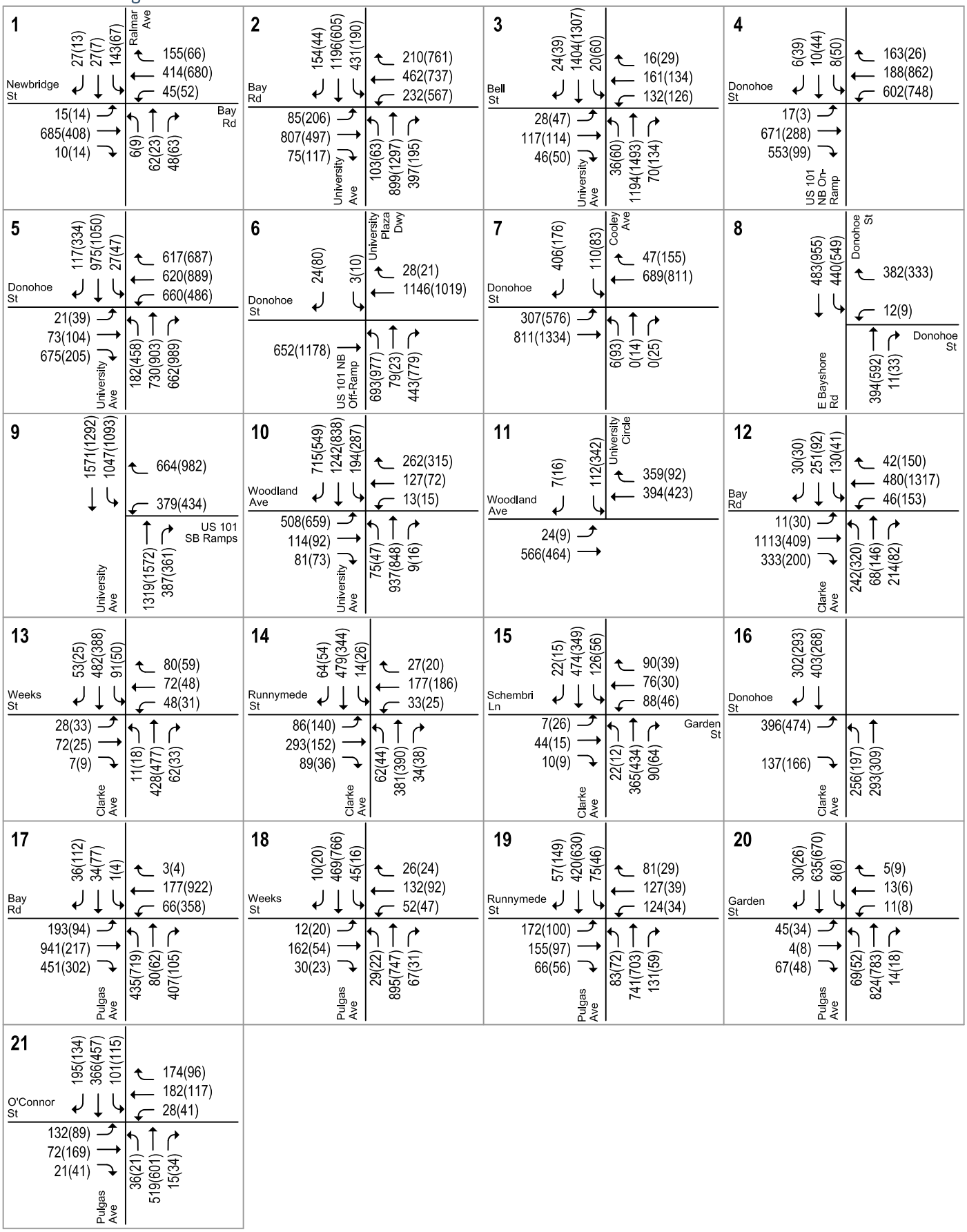


LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 13

Cumulative Plus Project Without Loop Road Traffic Volumes



LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 14
Cumulative Plus Project With Loop Road Traffic Volumes

Existing Intersection Traffic Operations

As noted previously, existing conditions reflect traffic operations prior to the COVID-19 pandemic. The results of the intersection level-of-service analysis under existing conditions show that most of the study intersections currently operate at an acceptable level (LOS D or better) (see Table 5) except for the following intersections:

- US 101 NB On-Ramp/University Plaza Phase II driveway (future) and Donohoe Street – AM peak hour
- University Avenue and Donohoe Street – AM and PM peak hours
- US 101 NB Off Ramp/University Plaza Phase I driveway and Donohoe Street – PM peak hour
- University Avenue and US 101 SB Ramps – AM and PM peak hours
- University Avenue and Woodland Avenue – AM and PM peak hours
- University Circle and Woodland Avenue – PM peak hour

The intersection levels of service calculation sheets are included in Appendix C.

Existing Plus Project Conditions Intersection Operations

The results of the intersection level of service analysis under existing plus project conditions without and with the loop road are summarized in Table 6. Under the existing plus project conditions with the loop road, the summary table only shows the LOS calculation results for those intersections affected by the loop road. The traffic volume, delay, and level of service at the rest of the intersections would be unaffected by the loop road.

The results show that, measured against the criteria presented in Chapter 1, the project would have an adverse effect on the following intersections during one or both peak hours under existing plus project conditions both without and with the loop road:

- US 101 NB On-Ramp/University Plaza Phase II driveway (future) and Donohoe Street – AM peak hour
- University Avenue and Donohoe Street – AM peak hour
- US 101 NB Off Ramp/University Plaza Phase I driveway and Donohoe Street – AM and PM peak hours
- Cooley Avenue and Donohoe Street – AM peak hour
- East Bayshore Road and Donohoe Street – AM peak hour

A sensitivity analysis was conducted subsequently to explore if any adverse effects could be eliminated through the use of enhanced TDM measures that would further reduce project trips. Even with a 50 percent reduction in trips due to enhanced TDM measures such as an expansion of the proposed student bussing program, the project would still have an adverse effect at two intersections under existing plus project conditions. Unlike at isolated intersections, the intersections in the simulation network are interdependent so the same set of improvements would be recommended to address an adverse effect of the project even if only a single intersection was negatively affected.

Table 5
Existing Intersection Levels of Service

Study Number	Intersection	Peak Hour	Count Date	Avg Delay (sec/veh)	LOS
1	Ralmar Avenue and Newbridge Street/Bay Road [1]	AM	01/01/19	12.8	B
	(All-way Stop)	PM	01/01/19	10.8	B
2	University Avenue and Bay Road	AM	04/17/19	41.7	D
		PM	04/16/19	48.4	D
3	University Avenue and Bell Street [2]	AM	01/01/19	14.3	B
		PM	01/01/19	15.8	B
4	US 101 NB On Ramp and Donohoe Street (unsignalized) [3&4]	AM	05/21/19	**64.7**	**F**
	(Uncontrolled)	PM	05/21/19	10.2	B
5	University Avenue and Donohoe Street [3]	AM	04/17/19	**107.9**	**F**
		PM	04/16/19	**74.9**	**E**
6	US 101 NB Off Ramp/University Plaza driveway and Donohoe Street [3]	AM	05/21/19	49.3	D
		PM	05/21/19	**142.6**	**F**
7	Cooley Avenue and Donohoe Street [3]	AM	05/21/19	31.8	C
		PM	05/21/19	36.6	D
8	East Bayshore Road and Donohoe Street [3]	AM	05/21/19	32.9	C
		PM	05/21/19	38.2	D
9	University Avenue and US101 SB Ramps [3]	AM	05/21/19	**99.2**	**F**
		PM	05/21/19	**87.4**	**F**
10	University Avenue and Woodland Avenue [3]	AM	04/17/19	**66.1**	**E**
		PM	04/16/19	**248.0**	**F**
11	University Circle and Woodland Avenue [3]	AM	05/21/19	18.7	B
		PM	05/21/19	**126.8**	**F**
12	Clarke Avenue and Bay Road	AM	05/09/19	16.0	C
	(All-way Stop)	PM	05/09/19	19.9	C
13	Clarke Avenue and Weeks Street	AM	05/09/19	11.1	B
	(All-way Stop)	PM	05/09/19	11.1	B
14	Clarke Avenue and Runnymede Street	AM	05/09/19	16.1	C
	(All-way Stop)	PM	05/09/19	13.3	B
15	Clarke Avenue and Schembri Lane	AM	05/21/19	13.2	B
	(All-way Stop)	PM	05/21/19	10.9	B
16	Clarke Avenue and Donohoe Street	AM	05/09/19	17.8	C
	(All-way Stop)	PM	05/09/19	18.5	C
17	Pulgas Avenue and Bay Road	AM	02/28/19	13.8	B
	(Two-way Stop [5])	PM	02/28/19	32.4	D
18	Pulgas Avenue and Weeks Street	AM	05/09/19	9.5	A
	(All-way Stop)	PM	05/09/19	11.6	B
19	Pulgas Avenue and Runnymede Street	AM	05/09/19	15.0	C
	(All-way Stop)	PM	05/09/19	16.4	C
20	Pulgas Avenue and Garden Street	AM	01/22/19	11.2	B
	(All-way Stop)	PM	01/22/19	13.5	B
21	Pulgas Avenue and O'Connor Street	AM	05/09/19	13.6	B
	(All-way Stop)	PM	05/09/19	15.7	C

Notes:

Bold indicates a substandard level of service.

1. Traffic counts from 2019 are not available. Thus, 2019 traffic volumes were estimated by applying a 1.2% annual growth factor to 2017 counts.
2. 2019 traffic volumes provided by Kittelson & Associates, Inc. Count date is not available.
3. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).
4. Delay shown is the average delay for the westbound left-turning vehicles, which have to find gaps in the eastbound traffic flow.
5. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach.

Table 6
Existing Plus Project Intersection Levels of Service

#	Intersection	Peak Hour	Count Date	Existing		Existing Plus Project without Loop Road				Existing Plus Project with Loop Road				Existing Plus Project (With Improvements)	
				Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS
1	Ralmar Avenue and Newbridge Street/Bay Road [1]	AM	01/01/19	12.8	B	13.7	B	0.9	0.040	--	--	--	--		
	(All-way Stop)	PM	01/01/19	10.8	B	11.0	B	0.3	0.020	--	--	--	--		
2	University Avenue and Bay Road	AM	04/17/19	41.7	D	43.8	D	2.3	0.034	42.8	D	2.3	0.0		
		PM	04/16/19	48.4	D	48.9	D	0.8	0.009	46.9	D	-2.5	-0.037		
3	University Avenue and Bell Street [2]	AM	01/01/19	14.3	B	15.0	B	0.9	0.022	--	--	--	--		
		PM	01/01/19	15.8	B	16.3	B	0.7	0.016	--	--	--	--		
4	US 101 NB On Ramp and Donohoe Street (unsignalized) [3,4,5]	AM	05/21/19	**64.7**	**F**	**75.7**	**F**	n/a	n/a	--	--	--	--	27.4	C
	(Uncontrolled)	PM	05/21/19	10.2	B	9.8	A	n/a	n/a	--	--	--	--	24.5	C
5	University Avenue and Donohoe Street [3]	AM	04/17/19	**107.9**	**F**	**112.7**	**F**	n/a	n/a	--	--	--	--	**89.6**	**F**
		PM	04/16/19	**74.9**	**E**	**77.1**	**E**	n/a	n/a	--	--	--	--	42.3	D
6	US 101 NB Off Ramp/University Plaza driveway and Donohoe Street [3]	AM	05/21/19	49.3	D	**85.2**	**F**	n/a	n/a	--	--	--	--	12.6	B
		PM	05/21/19	**142.6**	**F**	**163.9**	**F**	n/a	n/a	--	--	--	--	35.9	D
7	Cooley Avenue and Donohoe Street [3]	AM	05/21/19	31.8	C	**55.6**	**E**	n/a	n/a	--	--	--	--	18.1	B
		PM	05/21/19	36.6	D	35.0	C	n/a	n/a	--	--	--	--	23.7	C
8	East Bayshore Road and Donohoe Street [3]	AM	05/21/19	32.9	C	**100.5**	**F**	n/a	n/a	--	--	--	--	12.4	B
		PM	05/21/19	38.2	D	34.7	C	n/a	n/a	--	--	--	--	14.8	B
9	University Avenue and US101 SB Ramps [3]	AM	05/21/19	**99.2**	**F**	**92.6**	**F**	n/a	n/a	--	--	--	--	**61.2**	**E**
		PM	05/21/19	**87.4**	**F**	**90.4**	**F**	n/a	n/a	--	--	--	--	46.4	D
10	University Avenue and Woodland Avenue [3]	AM	04/17/19	**66.1**	**E**	**66.4**	**E**	n/a	n/a	--	--	--	--	47.2	D
		PM	04/16/19	**248.0**	**F**	**236.4**	**F**	n/a	n/a	--	--	--	--	**139.2**	**F**
11	University Circle and Woodland Avenue [3]	AM	05/21/19	18.7	B	26.5	C	n/a	n/a	--	--	--	--	13.8	B
		PM	05/21/19	**126.8**	**F**	**119.3**	**F**	n/a	n/a	--	--	--	--	17.7	B
12	Clarke Avenue and Bay Road	AM	05/09/19	16.0	C	18.0	C	2.0	0.052	15.8	C	-0.3	-0.036		
	(All-way Stop)	PM	05/09/19	19.9	C	21.7	C	1.8	0.040	19.5	C	-0.4	0.015		
13	Clarke Avenue and Weeks Street	AM	05/09/19	11.1	B	12.2	B	1.1	0.060	--	--	--	--		
	(All-way Stop)	PM	05/09/19	11.1	B	11.4	B	0.4	0.023	--	--	--	--		
14	Clarke Avenue and Runnymede Street	AM	05/09/19	16.1	C	20.2	C	4.1	0.100	--	--	--	--		
	(All-way Stop)	PM	05/09/19	13.3	B	14.2	B	0.9	0.041	--	--	--	--		
15	Clarke Avenue and Schembri Lane	AM	05/21/19	13.2	B	19.7	C	6.5	0.171	--	--	--	--		
	(All-way Stop)	PM	05/21/19	10.9	B	12.1	B	1.1	0.061	--	--	--	--		

Table 6 (continued)
Existing Plus Project Intersection Levels of Service

				Existing		Existing Plus Project without Loop Road				Existing Plus Project with Loop Road				Existing Plus Project (With Improvements)	
#	Intersection	Peak Hour	Count Date	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS
16	Clarke Avenue and Donohoe Street	AM	05/09/19	17.8	C	20.5	C	2.7	0.060	--	--	--	--		
	(All-way Stop)	PM	05/09/19	18.5	C	19.7	C	1.2	0.027	--	--	--	--		
17	Pulgas Avenue and Bay Road	AM	02/28/19	13.8	B	14.1	B	n/a	n/a	--	--	--	--		
	(Two-way Stop [6])	PM	02/28/19	32.4	D	33.4	D	n/a	n/a	--	--	--	--		
18	Pulgas Avenue and Weeks Street [5]	AM	05/09/19	9.5	A	9.6	A	0.1	0.013	--	--	--	--		
	(All-way Stop)	PM	05/09/19	11.6	B	11.8	B	0.1	0.007	--	--	--	--		
19	Pulgas Avenue and Runnymede Street [5]	AM	05/09/19	15.0	C	15.5	C	0.5	0.023	--	--	--	--		
	(All-way Stop)	PM	05/09/19	16.4	C	16.8	C	0.4	0.010	--	--	--	--		
20	Pulgas Avenue and Garden Street	AM	01/22/19	11.2	B	11.7	B	0.5	0.017	--	--	--	--		
	(All-way Stop)	PM	01/22/19	13.5	B	14.0	B	0.5	0.019	--	--	--	--		
21	Pulgas Avenue and O'Connor Street	AM	05/09/19	13.6	B	14.3	B	0.6	0.028	--	--	--	--		
	(All-way Stop)	PM	05/09/19	15.7	C	16.1	C	0.4	0.011	--	--	--	--		

Notes:

Bold indicates a substandard level of service.

Box indicates adverse effect caused by the project.

OVFL indicates that the result is out of software calculation limits

-- indicates that the intersection level of service and delay with the loop road is the same as without the loop road.

1. Traffic counts from 2019 are not available. Thus, 2019 traffic volumes were estimated by applying a 1.2% annual growth factor to 2017 counts.
2. 2019 traffic volumes provided by Kittelson & Associates, Inc. Count date is not available.
3. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).
4. Delay shown is the average delay for the westbound left-turning vehicles, which have to find gaps in the eastbound traffic flow.
5. Average delay and LOS under under existing plus project with improvements reflect signalization.
6. For one-way and two-way stop controlled intersections, the average delay and LOS is reported for the worst approach. Changes in critical delay and v/c for the entire intersection cannot be calculated (n/a).

It should be noted that at some intersections the average delay is shown to be decreased with the addition of project traffic. This occurs because the intersection delay is a weighted average of all intersection movements. When traffic is added to movements with delays lower than the average intersection delay, the average delay for the entire intersection can decrease. Furthermore, the congestion and queue spillback at an adjacent intersection can constrain the traffic volume at some intersections resulting in a small decrease in average delay.

The intersection levels of service calculation sheets are included in Appendix C.

Existing Plus Project Intersection Adverse Effects and Improvements

The adverse effects of the project and recommended improvements at study intersections under existing plus project conditions are described below. The recommended Donohoe Street improvements at Euclid Avenue and at the US 101 northbound on ramp will be constructed as part of the University Plaza Phase II development with full funding from the Sobrato Organization. The City of East Palo Alto entered into a reimbursement agreement with The Sobrato Organization that sets forth a mechanism and formula for reimbursement of a portion of the costs of these improvements by future developments that would add traffic to these intersections. Hence, the KIPP Charter High School project will be required to reimburse The Sobrato Organization a portion of the cost of these improvements based on the number of trips added by the KIPP Charter High School project according to the formula in the Sobrato reimbursement agreement.

In addition, the City is planning to implement the recommended Donohoe Street improvements at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue with partial funding by The Sobrato Organization to mitigate cumulative impacts of the University Plaza Phase II development. The KIPP Charter High School project would reduce its adverse effect on the traffic operations at study intersections by making a fair share monetary contribution towards these improvements. Planning level cost estimates of the recommended improvement measure and a calculation of the project's fair share contribution are presented in Appendix E.

4. US 101 Northbound On Ramp/University Plaza Phase II Driveway and Donohoe Street

Adverse Effect: This intersection, which is currently uncontrolled, operates at an unacceptable LOS F during the AM peak hour under existing conditions. The proposed project would cause the average delay to increase by more than five seconds per vehicle. The existing traffic volumes at this intersection without and with the proposed project meet the Peak-Hour Volume Warrant during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo Alto.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In order to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on ramp shall be shifted approximately 30 feet to the east. In addition, the westbound approach on Donohoe Street shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and a shared through-right lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that

taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

In addition, eliminating the project's adverse effect at this intersection also would require improvements at the intersection of Euclid/Donohoe/East Bayshore. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. Furthermore, the westbound approach shall be restriped to add an exclusive right-turn lane.

With the recommended improvements, the US 101 Northbound On Ramp/University Plaza Phase II Driveway/Donohoe intersection is expected to operate at an acceptable LOS C or better during both the AM and PM peak hours.

5. University Avenue and Donohoe Street

Adverse Effect: The intersection is currently operating at LOS F during the AM peak hour. The addition of project generated traffic is expected to cause the average delay to increase by more than four seconds during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp.

With the recommended improvements at this intersection and other neaby intersections, the intersection is expected to continue to operate at LOS F during the AM peak hour, however, the average delay would be less than under existing conditions. Thus, the improvements would eliminate the adverse effect of the project.

6. US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

Adverse Effect: The intersection currently operates at an acceptable LOS D during the AM peak hour and LOS F during the PM peak hour. The addition of project generated traffic would degrade the intersection operations to an unacceptable LOS F and would cause the average delay to increase by more than four seconds during the PM peak hour. This constitutes an adverse effect based on the thresholds established by the City of East Palo Alto.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length

left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street.

With these proposed improvements at this intersection and other neaby intersections, the intersection of US 101 northbound off ramp and Donohoe Street is expected to operate at an acceptable level (LOS D or better) during the AM and PM peak hours.

7. Cooley Avenue and Donohoe Street

Adverse Effect: This intersection currently operates at an acceptable LOS C during the AM peak hour. The additional trips generated by the proposed project would cause the intersection to degrade to an unacceptable LOS E during the AM peak hour. This constitutes an adverse effect based on the thresholds established by the City of East Palo Alto.

Improvements: Construction of the planned loop is not expected to affect the traffic volumes or delay at this intersection. The eastbound approach on Donohoe Street shall be restriped to accomodate one full left-turn lane from the upstream intersection and two through lanes and the traffic signal shall be coordinated with adjacent traffic signals on Donohoe Street.

With all the proposed improvements at this and other neaby intersections along Donohoe Street, the intersection of Cooley Avenue and Donohoe Street is expected to operate at an acceptable LOS C or better during the AM and PM peak hours.

8. East Bayshore Road and Donohoe Street

Adverse Effect: This intersection currently operates at an acceptable LOS C during the AM peak hour. The additional trips generated by the proposed project would cause the intersection to degrade to an unacceptable LOS F during the AM peak hour. This constitutes an adverse effect based on the thresholds established by the City of East Palo Alto.

Improvements: Construction of the planned loop is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on Donohoe Street and cause the East Bayshore/Donohoe intersection to operate at LOS B during the AM peak hour under existing plus project conditions. No additional improvements are required at this intersection.

Cumulative Conditions Intersection Operations

Cumulative plus project conditions were evaluated relative to cumulative no-project conditions in order to determine potential project effects. Cumulative level of service results are shown in Table 7. Under cumulative plus project conditions without the loop road, all but three of the study intersections are expected to operate at an unacceptable level, LOS E or F, during one or both peak hours.

Measured against the criteria presented in Chapter 1, the following 20 intersections were found to be adversely affected as a result of the project:

- Ralmar Avenue and Newbridge Street/Bay Road – AM peak hour
- University Avenue and Bay Road – AM peak hour

- US 101 NB On-Ramp/University Plaza Phase II driveway (future) and Donohoe Street (unsignalized) – AM and PM peak hours
- University Avenue and Donohoe Street – AM peak hour
- US 101 NB Off-Ramp/University Plaza Phase I driveway and Donohoe Street - AM and PM peak hours
- Cooley Avenue and Donohoe Street – AM peak hour
- East Bayshore Road and Donohoe Street - AM and PM peak hours
- University Avenue and US 101 SB Ramps – AM peak hour
- University Avenue and Woodland Avenue – AM peak hour
- University Circle and Woodland Avenue – AM peak hour
- Clarke Avenue and Bay Road – AM peak hour
- Clarke Avenue and Weeks Street – AM peak hour
- Clarke Avenue and Runnymede Street – AM peak hour
- Clarke Avenue and Schembri Lane/Garden Street – AM peak hour
- Clarke Avenue and Donohoe Street – AM and PM peak hours
- Pulgas Avenue and Bay Road – AM peak hour
- Pulgas Avenue and Weeks Street – AM peak hour
- Pulgas Avenue and Runnymede Street – AM peak hour
- Pulgas Avenue and Garden Street – AM and PM peak hours
- Pulgas Avenue and O'Connor Street – AM and PM peak hours

The proposed project will implement a Transportation Demand Management (TDM plan) to reduce vehicle trips including school shuttle services. The trip generation estimates already reflect that 200 students would be transported by school busses. A sensitivity analysis was conducted subsequently to explore if any adverse effects from the project could be reduced through the use of enhanced TDM measures that would further reduce project trips. Even with a 50 percent reduction in trips due to enhanced TDM measures such as an expansion of the proposed student bussing program, the project would still have an adverse effect at four intersections analyzed using Synchro/SimTraffic under cumulative plus project conditions. Unlike at isolated intersections, the intersections in the simulation network are interdependent so the same set of improvements would be recommended to address an adverse effect of the project even if only a single intersection was negatively affected.

Improvements were identified to reduce the adverse effects of the project at each of the above intersections under cumulative plus project conditions and described in the following section.

Table 7
Cumulative Intersection Levels of Service

#	Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project without Loop Road				Cumulative Plus Project with Loop Road		Cumulative Plus Project with Loop Road + Other Improvements	
			Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS
1	Ralmar Avenue and Newbridge Street/Bay Road	AM	**72.0**	**F**	**83.2**	**F**	**11.2**	**0.041**	--	--	13.8	B
	(All-way Stop)	PM	**54.4**	**F**	**59.4**	**F**	**5.0**	**0.025**	--	--	8.5	A
2	University Avenue and Bay Road	AM	**70.5**	**E**	**74.4**	**E**	**5.2**	**0.019**	**68.4**	**E**		
		PM	**94.2**	**F**	**94.8**	**F**	**0.6**	**0.002**	**75.7**	**E**		
3	University Avenue and Bell Street	AM	17.9	B	19.7	B	2.3	0.028	--	--		
		PM	20.2	C	21.4	C	1.7	0.018	--	--		
4	US 101 NB On Ramp and Donohoe Street (unsignalized) [1,2,3]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	21.3	C
	(Uncontrolled)	PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	23.5	C
5	University Avenue and Donohoe Street [1]	AM	**169.7**	**F**	**183.7**	**F**	n/a	n/a	--	--	**83.0**	**F**
		PM	**121.5**	**F**	**124.7**	**F**	n/a	n/a	--	--	**95.0**	**F**
6	US 101 NB Off Ramp/University Plaza driveway and Donohoe Street [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	37.4	D
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**247.7**	**F**
7	Cooley Avenue and Donohoe Street [1]	AM	**299.9**	**F**	**OVRL**	**F**	n/a	n/a	--	--	35.4	D
		PM	47.2	D	48.2	D	n/a	n/a	--	--	43.8	D
8	East Bayshore Road and Donohoe Street [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**150.8**	**F**
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**206.6**	**F**
9	University Avenue and US101 SB Ramps [1]	AM	**156.5**	**F**	**169.9**	**F**	n/a	n/a	--	--	**106.4**	**F**
		PM	**138.1**	**F**	**139.0**	**F**	n/a	n/a	--	--	**115.0**	**F**
10	University Avenue and Woodland Avenue [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**111.3**	**F**
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**179.8**	**F**
11	University Circle and Woodland Avenue [1]	AM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**58.3**	**E**
		PM	**OVRL**	**F**	**OVRL**	**F**	n/a	n/a	--	--	**75.6**	**E**
12	Clarke Avenue and Bay Road [4&5]	AM	**115.0**	**F**	**124.9**	**F**	**15.5**	**0.034**	30.9	C		
		PM	28.5	C	29.4	C	1.0	0.008	24.4	C		
13	Clarke Avenue and Weeks Street	AM	33.1	D	**45.5**	**E**	**12.4**	**0.085**	**41.0**	**E**	12.6	B
	(All-way Stop)	PM	17.7	C	19.1	C	1.4	0.029	18.6	C	10.2	B
14	Clarke Avenue and Runnymede Street	AM	**82.1**	**F**	**104.4**	**F**	**22.4**	**0.104**	--	--	20.3	C
	(All-way Stop)	PM	29.6	D	**36.3**	**E**	**6.7**	**0.058**	--	--	18.3	B
15	Clarke Avenue and Schembri Lane	AM	18.9	C	**38.6**	**E**	**19.7**	**0.202**	--	--	14.3	B
	(All-way Stop)	PM	13.3	B	15.5	C	2.2	0.071	--	--	9.2	A

Table 7 (continued)
Cumulative Intersection Levels of Service

#	Intersection	Peak Hour	Cumulative No Project Avg Delay (sec/veh)	LOS	Cumulative Plus Project without Loop Road Avg Delay (sec/veh)	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Cumulative Plus Project with Loop Road Avg Delay (sec/veh)	LOS	Cumulative Plus Project with Loop Road + Other Improvements Avg Delay (sec/veh)	LOS
16	Clarke Avenue and Donohoe Street	AM	**91.1**	**F**	**109.6**	**F**	**18.5**	**0.075**	--	--	29.8	C
	(All-way Stop)	PM	**80.9**	**F**	**87.6**	**F**	**6.8**	**0.029**	--	--	31.7	C
17	Pulgas Avenue and Bay Road [4&5]	AM	**218.9**	**F**	**223.0**	**F**	**4.5**	**0.010**	**221.9**	**F**	**167.7**	**F**
		PM	**OVFL**	**F**	**OVFL**	**F**	**3.9**	**0.009**	**OVFL**	**F**	56.4	**E**
18	Pulgas Avenue and Weeks Street	AM	**214.6**	**F**	**220.7**	**F**	**6.1**	**0.022**	**217.7**	**F**		
	(All-way Stop)	PM	**142.1**	**F**	**144.2**	**F**	**2.1**	**0.004**	**143.5**	**F**		
19	Pulgas Avenue and Runnymede Street [3]	AM	**OVFL**	**F**	**OVFL**	**F**	**7.9**	**0.031**	--	--	33.8	C
	(All-way Stop)	PM	**185.2**	**F**	**187.8**	**F**	**2.6**	**0.012**	--	--	15.4	B
20	Pulgas Avenue and Garden Street [3]	AM	**98.6**	**F**	**113.8**	**F**	**15.2**	**0.062**	--	--	7.4	A
	(All-way Stop)	PM	**84.1**	**F**	**91.5**	**F**	**7.4**	**0.030**	--	--	5.7	A
21	Pulgas Avenue and O'Connor Street [3]	AM	**123.8**	**F**	**133.2**	**F**	**9.4**	**0.037**	--	--	20.7	C
	(All-way Stop)	PM	**150.9**	**F**	**155.9**	**F**	**4.9**	**0.020**	--	--	22.0	C

Notes:
Bold indicates a substandard level of service.
Box indicates adverse effect caused by the project.
OVFL indicates that the result is out of software calculation limits
-- indicates that the intersection level of service and delay with the loop road is the same as without the loop road.
1. Intersections were analyzed using Synchro/SimTraffic software due to the close proximity of these intersections. Changes in critical delay and v/c cannot be calculated (n/a).
2. Under cumulative conditions, delay shown is the average delay for the southbound approach, where vehicles have to find gaps in the eastbound and westbound traffic flow on Donohoe Street.
3. Average delay and LOS under cumulative plus project with Loop Road and other improvements reflects signalization.
4. A new traffic signal is assumed under cumulative conditions based on mitigation measures identified in the Ravenswood/Four Corners TOD Specific Plan DEIR.
5. Bay Road Improvements Project are assumed under cumulative conditions.

Cumulative Intersection Adverse Effects and Improvements

The adverse effects of the project on traffic operations at study intersections and recommended improvements under cumulative conditions are described below. Planning level cost estimates of the recommended improvements and a calculation of the project's fair share contribution are presented in Appendix D.

1. Ralmar Avenue and Newbridge Street/Bay Road

Adverse Effect: This intersection would operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. The addition of project traffic would cause the control delay at the intersection to increase by five or more seconds during the AM peak hours under cumulative plus project conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect according to the thresholds established by the City of East Palo Alto.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 33 percent, which could be achieved by expanding the bussing program from 200 to 350 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS B during the AM peak hour and LOS A during the PM peak hour under cumulative plus project conditions.

2. University Avenue and Bay Road

Adverse Effect: This intersection would operate at an unacceptable LOS E during the AM peak hour under cumulative no project conditions. The addition of project traffic would cause the critical-movement delay at the intersection to increase by four or more seconds and the volume-to-capacity ratio (V/C) to increase by .01 or more under cumulative plus project conditions. This constitutes an adverse effect according to the thresholds established by the City of East Palo Alto.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 13 percent, which could be achieved by expanding the bussing program from 200 to 260 students.

Construction of the planned loop road would reduce the traffic volume at the University/Bay intersection causing a decrease in the average vehicle delay during the AM peak hour. While the intersection would continue to operate at an unacceptable LOS E, the average vehicle delay would be less than under cumulative no project conditions. Therefore, construction of the loop road would fully offset the adverse effect at this intersection.

4. US 101 Northbound On-Ramp/University Plaza Phase II Driveway and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than five seconds per vehicle during both peak hours. The cumulative traffic volumes at this intersection without and with the proposed project meet the Peak-Hour Volume Warrant during the PM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. In order to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on ramp shall be shifted approximately 30 feet to the east. In addition, the westbound approach on Donohoe Street shall be restriped to accommodate a short exclusive left-turn pocket (approximately 60 feet in length), a shared left/through lane, and a shared through-right lane. These improvements would require widening of the US 101 northbound on ramp to accommodate two lanes that taper down to a single lane before this ramp connects with the loop on ramp from northbound University Avenue.

In addition, eliminating the project's cumulative adverse effect at this intersection also would require improvements at the intersection of Euclid/Donohoe/East Bayshore. A new traffic signal shall be installed at this intersection and coordinated with other closely spaced traffic signals along Donohoe Street. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. Furthermore, the westbound approach shall be restriped to add an exclusive right-turn lane.

With these recommended improvements, the US 101 Northbound On-Ramp/University Plaza Phase II Driveway/Donohoe intersection is expected to operate at an acceptable LOS C during both the AM and PM peak hours.

5. University Avenue and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street shall be widened to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements on Donohoe Street. These improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp. In addition, the

inner left-turn lane on the northbound University Avenue approach shall be extended by an additional 250 feet. The northbound approach on University Avenue consists of dual left-turn lanes, with the inner left-turn lane measuring 175 feet and the outer left-turn lane measuring 125 feet. With the extension of the inner left-turn lane by an additional 250 feet, the two northbound left-turn lanes would provide for a total of 550 feet of queue storage capacity, or 22 vehicles. This additional storage would prevent left-turn queues from spilling over into the adjacent through lane and impeding the through traffic on University Avenue. Extension of the northbound left-turn lane can be accommodated within the existing right-of-way, by cutting into the raised median on University Avenue. This improvement would not require any additional right-of-way acquisition or reconfiguration of the US 101 overpass.

With the implementation of these improvements, the University Avenue/Donohoe Street intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours. However, the average delay per vehicle would be less than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

6. US 101 Northbound Off Ramp/University Plaza Phase I driveway and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The westbound approach on Donohoe Street at the US 101 northbound off ramp shall be widened to accommodate four through lanes to improve the vehicular throughput at this intersection. This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left-turn lane. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street.

With all these proposed improvements, the intersection of US 101 northbound off ramp and Donohoe Street is expected to operate at an acceptable level (LOS D) during the AM peak hour. During the PM peak hour, the intersection would continue to operate at an unacceptable LOS F. However, the average delay per vehicle would be less than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

7. Cooley Avenue and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The eastbound Donohoe Street approach to Cooley

Avenue shall be restriped to include two through lanes and a full length left-turn lane and the traffic signal shall be coordinated with adjacent traffic signals on Donohoe Street.

With the recommended modifications at the University/Cooley intersection described above, along with the recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, and at the US 101 northbound off ramp, the intersection of Cooley Avenue and Donohoe Street is expected to operate at an acceptable LOS D during the AM and PM peak hours. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions.

8. East Bayshore Road and Donohoe Street

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the same time periods. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on Donohoe Street and reduce delay at the East Bayshore/Donohoe intersection. The intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions during the AM and PM peak hours. Thus, the improvements would satisfactorily eliminate the project's adverse effect on traffic operations at this intersection. No additional improvements are required to eliminate the adverse effects of the project at this intersection.

9. University Avenue and US 101 Southbound Ramps

Adverse Effect: The intersection is expected to continue to operate at unacceptable LOS F during the AM peak hour and the addition of project trips would cause the average intersection delay to increase by more than four seconds during the AM peak hour. This constitutes an adverse effect according to thresholds established by City of East Palo Alto.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue and eliminate the queue spillback that extends from Donohoe Street past the US 101 southbound ramps and would reduce the delay at the University Avenue and US 101 southbound ramps intersection. The intersection would continue to operate at an unacceptable LOS F during the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would

satisfactorily eliminate the project's adverse effect on traffic operations at this intersection under cumulative conditions. No additional improvements are required to eliminate the cumulative adverse effect of the project at this intersection.

10. University Avenue and Woodland Avenue

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue, and as a result reduce the queues on Woodland Avenue.

The intersection would continue to operate at an unacceptable LOS F during both the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the adverse cumulative project effects. No additional improvements are required to eliminate the adverse cumulative project effect at this intersection.

11. University Circle and Woodland Avenue

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. With the proposed project, the intersection average delay would increase by more than four seconds per vehicle during the AM peak hour. This constitutes an adverse effect according to the thresholds established by the City of East Palo.

Improvements: Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. The recommended Donohoe Street improvements at Euclid Avenue, at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue would improve traffic flow on University Avenue and as a result reduce the queues on Woodland Avenue.

The intersection would operate at an unacceptable LOS E during both the AM and PM peak hours under cumulative plus project conditions with the recommended improvements. However, the average delay per vehicle would be lower than under cumulative no project conditions. Thus, the improvements would satisfactorily eliminate the adverse cumulative project effects. No additional improvements are required to eliminate the adverse cumulative project effect at this intersection.

12. Clarke Avenue and Bay Road

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. The addition of project traffic would cause the critical-movement delay at the intersection to increase by four or more seconds and the volume-to-capacity ratio (V/C) to increase by .01 or more during the AM peak hour under cumulative plus project conditions. This

constitutes an adverse effect according to the thresholds established by the City of East Palo Alto.

Improvements: Cumulative conditions assume the completion of the Bay Road improvement project and installation of a traffic signal at this intersection, which was identified as an improvement in the Ravenswood/Four Corners TOD Specific Plan DEIR.

Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 48 percent, which could be achieved by expanding the bussing program from 200 to 420 students.

Construction of the planned loop road would reduce the traffic volume at the Clarke/Bay intersection causing a decrease in the average vehicle delay during both peak hours. With the loop road, the intersection would operate at an acceptable LOS C during the AM and PM peak hours under cumulative plus project conditions. Therefore, construction of the loop road would eliminate the project's cumulative adverse effect on traffic operations at this intersection.

13. Clarke Avenue and Weeks Street

Adverse Effect: This intersection would operate at acceptable LOS D during the AM peak hour under cumulative no project conditions. The addition of project traffic would cause the intersection to degrade to an unacceptable LOS E during the AM peak hour under cumulative plus project conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 49 percent, which could be achieved by expanding the bussing program from 200 to 420 students.

The construction of the planned loop road would have only a minor effect on the traffic volumes and delay at the Clarke/Weeks intersection. Therefore, construction of the loop road would not eliminate the adverse effect at this intersection.

The adverse cumulative effect at this intersection could be eliminated by constructing the planned loop road and installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable level (LOS B) during the AM and PM peak hours under cumulative plus project conditions.

14. Clarke Avenue and Runnymede Street

Adverse Effect: This intersection would operate at an unacceptable level (LOS F) during the AM peak hour and at acceptable LOS D during the PM peak hour under cumulative no project conditions. The addition of project traffic would cause the control delay at the intersection to increase by five or more seconds during the AM peak hour and cause the intersection to degrade to an unacceptable LOS E during the PM

peak hour under cumulative plus project conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 44 percent, which could be achieved by expanding the bussing program from 200 to 400 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C or better during the AM and PM peak hours under cumulative plus project conditions.

15. Clarke Avenue and Schembri Lane/Garden Street

Adverse Effect: This intersection would operate at an acceptable level (LOS C) during the AM peak hour under cumulative no project conditions. The addition of project traffic would degrade the LOS to an unacceptable LOS E during the AM peak hour, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 8 percent, which could be achieved by expanding the bussing program from 200 to 240 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS B during the AM peak hour and LOS A during the PM peak hour under cumulative plus project conditions.

16. Clarke Avenue and Donohoe Street

Adverse Effect: This intersection would operate at an unacceptable level (LOS F) during the AM and PM peak hours under cumulative no project conditions. The addition of project traffic would cause the control delay at the intersection to increase by five or more seconds during both peak hours under cumulative plus project conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 43 percent, which could be achieved by expanding the bussing program from 200 to 390 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C during the AM and PM peak hours under cumulative plus project conditions.

17. Pulgas Avenue and Bay Road

Adverse Effect: The intersection is expected to operate at an unacceptable LOS F during the AM peak hour under cumulative no project conditions. The addition of project traffic would cause the critical-movement delay at the intersection to increase by four or more seconds and the volume-to-capacity ratio (V/C) to increase by .01 or more during the AM peak hour under cumulative plus project with loop road conditions. This constitutes an adverse effect according to the thresholds established by the City of East Palo Alto.

Improvements: Cumulative conditions assume the completion of the Bay Road improvement project and installation of a traffic signal at this intersection, which was identified as an improvement in the Ravenswood/Four Corners TOD Specific Plan DEIR.

Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 15 percent, which could be achieved by expanding the bussing program from 200 to 270 students.

Construction of the planned loop road would have only a minor effect on the traffic volumes and delay at the Pulgas/Bay intersection. Therefore, construction of the loop road would not eliminate the project's adverse effect at this intersection.

The adverse cumulative effect at this intersection could be eliminated by constructing the planned loop road, adding an exclusive left-turn lane on the westbound Bay Road approach, and modifying the northbound Pulgas Avenue approach to include one exclusive left-turn lane and one shared left/through/right-turn lane. Split phase signal control shall be used on the north and south approaches. These improvements will require the acquisition of additional right of way at the northeast corner to allow for curb, gutter, sidewalk, and signal equipment. However, the needed right of way would not require the demolition of the existing building on the northeast corner. With these improvements, the intersection would operate at an unacceptable level (LOS F and LOS E during the AM and PM peak hours, respectively). However, the average delays would be less than under cumulative no project conditions.

18. Pulgas Avenue and Weeks Street

Adverse Effect: This intersection would operate at an unacceptable level (LOS F) during the AM peak hour under cumulative no project conditions. The addition of project traffic would cause the control delay at the intersection to increase by five or more seconds during the AM peak hour under cumulative plus project conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 15 percent, which could be achieved by expanding the bussing program from 200 to 270 students.

Construction of the planned loop road would reduce the traffic volume at the Pulgas Avenue/Week Street intersection causing a decrease in the control delay during the AM peak hour. While the intersection would continue to operate at an unacceptable LOS F, the increase of control delay would be less than five seconds compared to the cumulative no project conditions. Therefore, construction of the loop road would eliminate the adverse effect at this intersection.

19. Pulgas Avenue and Runnymede Street

Adverse Effect: This intersection would operate at an unacceptable level (LOS F) during the AM peak hour under cumulative no project conditions. The addition of project traffic would cause the control delay at the intersection to increase by five or more seconds during the AM peak hour under cumulative plus project conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce AM peak-hour trips by 20 percent, which could be achieved by expanding the bussing program from 200 to 290 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C during the AM peak hour and LOS B during the PM peak hour under cumulative plus project conditions.

20. Pulgas Avenue and Garden Street

Adverse Effect: This intersection would operate at unacceptable levels (LOS F) during the AM and PM peak hours under cumulative no project conditions. The addition of project traffic would cause the control delay at the intersection to increase by five or more seconds during both peak hours under cumulative plus project

conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 40 percent, which could be achieved by expanding the bussing program from 200 to 380 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to an expanded TDM Plan, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS A during the AM and PM peak hours under cumulative plus project conditions.

21. Pulgas Avenue and O'Connor Street

Adverse Effect: This intersection would operate at an unacceptable level (LOS F) during the AM and PM peak hours under cumulative no project conditions. The addition of project traffic would cause the control delay at the intersection to increase by five or more seconds during the AM and PM peak hours under cumulative plus project conditions, and the intersection traffic volumes are expected to satisfy the Peak-Hour Volume Warrant. This constitutes an adverse effect under the City of East Palo Alto standards.

Improvements: Applying enhanced TDM measures could reduce delays and improve intersection operations. In order to eliminate the project's adverse effects under cumulative plus project conditions without any physical improvements to the intersection, the TDM Plan would need to further reduce the peak-hour trips by 26 percent, which could be achieved by expanding the bussing program from 200 to 320 students.

Construction of the planned loop road is not expected to affect the traffic volumes or delay at this intersection. As an alternative to enhanced TDM measures, the adverse effect at this intersection could be eliminated by installing a new traffic signal at this intersection. Along with a new traffic signal, appropriate pedestrian and bicycle accommodation should be provided. This includes pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate at an acceptable LOS C during the AM and PM peak hours under cumulative plus project conditions.

Potential Impacts on Pedestrians, Bicycles and Transit

It is expected that many students would walk or bike to the school. Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site, sidewalks exist along both sides of Clarke Avenue, Pulgas Avenue, Bay Road, University Avenue, and Garden Street east of Pulgas Avenue. Between Clarke Avenue and Pulgas Avenue, Garden Street has no sidewalk on the south side of the street, and on the north side of the street, a sidewalk is present only along the project frontage and extending eastward to Pulgas Avenue. However, there are

not continuous sidewalks along the north side of Garden Street to the west of the project site. It is recommended that a new sidewalk be constructed along the north side of Garden Street between Clarke Avenue and the project site.

Crosswalks with pedestrian signal heads and push buttons are provided at all approaches of the nearest signalized intersections (University Avenue/Bay Road, University Avenue/Runnymede Street, and University Avenue/Bell Street). New traffic signals are proposed at several study intersections to eliminate adverse cumulative effects on intersection levels of service. Along with a new traffic signal, appropriate pedestrian and bicycle accommodations should be provided. This includes crosswalks, pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, and bicycle detection loops.

In the immediate vicinity of the project, high visibility crosswalks are provided along the west and south legs of the Clarke Avenue/Garden Street and Pulgas Avenue/Garden Street intersections. The intersection of Pulgas Avenue and Bay Road has a crosswalk on only the west approach while the intersection of Pulgas Avenue and Runnymede Street has crosswalks on all legs except the north approach. There are no crosswalks available at the following three unsignalized study intersections:

- Pulgas Avenue and Weeks Street
- Clarke Avenue and Weeks Street
- Clarke Avenue and Runnymede Street

Crosswalks with ADA-compliant curb ramps should be provided at the following locations to enhance the student walking routes to school:

- Pulgas Avenue and Garden Street: north approach
- Clarke Avenue and Garden Street: north and east approaches

These new pedestrian crosswalks should be yellow due to their proximity to the proposed school. For added visibility, the area of the crosswalks should be marked with yellow longitudinal lines parallel to traffic flow.

Designated bicycles facilities in the immediate vicinity of the project site include bike lanes on Bay Road from Newbridge Street to Clarke Avenue, and on University Avenue starting just north of Donohoe Street and extending to the location of the future loop road and the Bay Trail, a bike and pedestrian path that runs along the west boundary of the Baylands Nature Preserve area about 0.3 mile east of the project site. There is also a short paved mixed-use trail known as the Rail Spur that extends from Bay Road to Pulgas Avenue. These bicycle facilities are not well-connected. However, many of the residential streets surrounding the project site are conducive to bicycle travel due to their low traffic volumes and low speeds.

It should be noted that the East Palo Alto General Plan 2035 shows planned Class II bike lanes along the entirety of Bay Road and Pulgas Avenue. The Bay Road Improvement Project will extend the existing bike lanes on Bay Road from their current terminus at Clarke Avenue eastward past Tara Street. The General Plan also highlights planned Class III bike routes along Weeks Street, Cooley Avenue, East Bayshore Road, Euclid Avenue, and Runnymede Street between Cooley Avenue and Euclid Avenue. These additions to the bicycle network would improve bike access to the site.

The study area is served by two SamTrans bus routes. The nearest bus stops are located on Pulgas Avenue and on Clarke Avenue less than ¼ mile of the project site. In addition, the school will provide private bus service for 50 students during the first year of operation and increasing each year to 200 students at full enrollment. The combination of public transit services and private bus service is expected to substantially reduce the vehicle trips generated by the proposed school.

Turn Pocket Queuing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis for intersection turning movements where the project would add a substantial number of trips. This analysis provides a basis for estimating future storage requirements at the intersections. The following turn movements were selected for evaluation:

- US 101 NB On-Ramp and Donohoe Street – westbound left turn
- University Avenue and Donohoe Street – westbound left turn and northbound right turn
- Cooley Avenue and Donohoe Street – eastbound left turn
- East Bayshore Road and Donohoe Street – southbound left turn
- University Avenue and Woodland Avenue – eastbound left turn, southbound left turn, and southbound right turn

Vehicle queues at the above listed study intersections were evaluated based on the SimTraffic simulation results. The analysis findings are described below and presented in Table 8.

Table 8
Turn Pocket Queuing Analysis

Intersection	Movement / Lane	Storage Length (feet)	95th Percentile Queue Lengths (feet)					
			Existing		Existing+Project		Existing+Project (with Improvements)	
			AM	PM	AM	PM	AM	PM
4. US 101 NB On-Ramp & Donohoe Street	WBL	320	**425**	200	**450**	225	175	175
	WBLT	-	-	-	-	-	275	**375**
5. University Avenue & Donohoe Street	WBL	200	**300**	**325**	**325**	**325**	**250**	175
	WBL2	-	-	-	-	-	**275**	125
	WBLT	275	**325**	**300**	**325**	**300**		
	NBR	75	**100**	**100**	**100**	**100**	**100**	**100**
7. Donohoe Street & Cooley Avenue	EBL	100	**175**	**175**	**175**	**175**	225	**300**
8. E. Bayshore Road & Donohoe Street	SBL	200	**225**	**250**	**225**	**250**	**225**	**375**
10. University Avenue & Woodland Avenue	SBL	250	**375**	**325**	**375**	**325**	**350**	**375**
	SBR	300	225	125	225	125	175	175
	EBL1	150	**200**	**175**	**200**	**175**	**175**	**200**
	EBL2	150	**175**	**175**	**175**	**175**	**175**	**200**

US 101 NB On-Ramp and Donohoe Street

Westbound Left Turn

The left lane on westbound Donohoe Street has approximately 320 feet of storage between University Avenue and the US 101 Northbound On-Ramp. The existing left-turn storage in this lane is adequate for the existing traffic volumes during the PM peak hour. However, during the AM peak hour, the estimated 95th percentile queue under existing conditions exceeds the existing vehicle storage capacity by four vehicles. Under existing plus project conditions, the proposed project is expected to extend the 95th percentile queue by one vehicle during the AM peak hour. The University Plaza Phase II project is expected to install new traffic signals at the Donohoe/Euclid intersection and the Donohoe/US 101 NB On Ramp intersection. In addition, the westbound approach on Donohoe Street will be restriped to accommodate a short exclusive left-turn pocket in addition to a shared left/through lane, and a shared

through-right lane. The proposed KIPP school project would contribute partial funding for these planned improvements. The new traffic signals and lane configuration are expected to reduce the spillback on Donohoe Street improving the traffic flow for the westbound left-turn movement on Donohoe Street. With the recommended improvements, the 95th percentile queue length for this left-turn movement would be accommodated within the available storage during the AM peak hour. While queues in the shared left/through lane would extend beyond the length of the block to University Avenue during the PM peak hour, the queue length in this lane is due to westbound through traffic.

University Avenue and Donohoe Street

Westbound Left Turn

Currently, the westbound movement has one dedicated left-turn lane and one shared left-turn/through lane. Under existing conditions, the 95th percentile queue for the westbound left-turn lane exceeds the available storage capacity during the AM and PM peak hours. The 95th percentile queue in the westbound through/left-turn lane also exceeds the existing storage. The proposed project is estimated to increase the 95th percentile queue in each lane by up to one vehicle. With the recommended dual left-turn lanes on Donohoe Street, the westbound left-turn queue would continue to exceed the storage capacity during the AM peak hour but would be less than that under existing conditions without the project.

Northbound Right Turn

Currently, the right-turn pocket on northbound University Avenue is only about 75 feet long, which provides enough storage for about three vehicles. Under existing conditions, the estimated 95th percentile queue under existing conditions exceeds the existing vehicle storage capacity by one vehicle during both AM and PM peak hours. The proposed project is not expected to cause noticeable increase to the queue during the AM and PM peak hours. Even with the recommended Donohoe Street improvements at the US 101 northbound on ramp, at University Avenue, at the US 101 northbound off ramp, and at Cooley Avenue, which would improve traffic flow on northbound University Avenue, the analysis shows that the queues would continue to exceed the exiting storage capacity during both the AM and PM peak hours. The turn pocket cannot be extended due to the proximity of the loop on ramp to northbound US 101.

Cooley Avenue and Donohoe Street

Eastbound Left Turn

Currently, the eastbound left-turn pocket on Donohoe Street is only about 100 feet long, which provides enough storage for four vehicles. Under existing conditions, the estimated 95th percentile queue under existing conditions exceeds the existing vehicle storage capacity by three vehicles during both AM and PM peak hours. The proposed project is not expected to cause a noticeable increase to the queues during the AM and PM peak hours. The proposed project would contribute to recommended improvements that would add a lane on westbound Donohoe Street at the US 101 Northbound Off Ramp, narrow eastbound Donohoe Street from three to two lanes, and extend the eastbound left-turn lane to the full length of the block (approximately 250 feet). With the modifications, the eastbound left-turn queue would extend beyond into the upstream intersection during the PM peak hour. Signal coordination should be used to manage the queues at this intersection.

E. Bayshore Road and Donohoe Street

Southbound Left Turn

Currently, the southbound left-turn pocket on Donohoe Street is about 200 feet long, which provides enough storage for eight vehicles. Under existing conditions, the estimated 95th percentile queue exceeds the existing vehicle storage capacity by one vehicle during the AM peak hour and by two

vehicles during the PM peak hour. The proposed project is not expected to cause noticeable increase to the queues during the AM and PM peak hours. The recommended modifications on Donohoe Street west of this intersection are expected to alleviate congestion at upstream bottlenecks resulting in an increase in the southbound left-turn queue. The southbound left-turn lane cannot be lengthened as it already extends to the upstream intersection at Cooley Avenue. Signal coordination should be used to manage the queues at this intersection.

University Avenue and Woodland Avenue

Southbound Left Turn

Currently, the southbound left-turn pocket on University Avenue is about 250 feet long, which provides enough storage for ten vehicles. Under existing conditions, the estimated 95th percentile queue exceeds the existing vehicle storage capacity by five vehicles during the AM peak hour and by three vehicles during the PM peak hour. The proposed project is not expected to cause noticeable increase to the queues during the AM and PM peak hours.

Southbound Right Turn

Under existing and existing plus project conditions, the southbound right-turn pocket provides sufficient storage to accommodate the projected 95th percentile queue length.

Eastbound Left Turn

Under existing conditions, the 95th percentile queues for the left-turn movement from eastbound Woodland Avenue to the northbound University Avenue exceeds the available storage capacity during the AM and PM peak hours. This is because the queues fill the entire block from University Avenue to University Circle. With the addition of project traffic, the queues would continue to extend back to University Circle during both the AM and PM peak hours. Even with the recommended Donohoe Street improvements, which would improve traffic flow on northbound University Avenue, the analysis shows that the queues would continue to extend back to University Circle during both the AM and PM peak hours. This is due to the short segment length (approximately 160 feet) and a high volume of left-turning traffic. Resolving this queuing deficiency would require widening Woodland Avenue to add a third eastbound left-turn lane and dedication of additional right-of-way. Thus, this improvement is not feasible without the cooperation of the adjacent property owners.

Vehicular Site Access and Circulation

A review of the project site plan was performed to determine whether adequate site access and circulation would be provided. The review is based on the site plan prepared by K2A Architecture + Interiors dated December 10, 2019. As shown on Figure 2, the project would not change the existing driveway locations, layouts of the parking lots, or internal vehicle circulation.

Site Access

Vehicular access to the project site would be provided via two driveways on Garden Street. The western driveway would remain an inbound only driveway and the eastern driveway would remain a full access driveway. The western driveway on Garden Street would provide access to the west parking lot and the drop-off zone. The eastern driveway would provide full access to the eastern parking lot as well as serve all the outbound pick-up and drop-off traffic.

> **Recommendation:** The eastern driveway should be limited to outbound only traffic during the peak drop-off and pick-up periods in order to reduce conflicts for vehicles exiting after dropping off or picking up students. It would function as a two-way driveway during the mid-day for visitor use. Staff should monitor the eastern driveway during peak periods to ensure its proper use and to prevent parents from using the eastern parking lot as a student drop off or pick up area.

On-Site Circulation

The drop-off/pick-up area would be located along the northern side of the school building and would have one-way circulation during the peak periods before and after school in a clockwise direction from the western (inbound) driveway to the eastern (outbound) driveway on Garden Street. The student zone would allow five cars to drop-off/pick-up students in a curbside parallel parking zone. After loading or unloading students, vehicles would be able to pull into the travel lane to the left to proceed without having to wait for other vehicles to finish loading/unloading. There is space for approximately 15 cars to queue on site between the inbound driveway on Garden Street and the start of the student loading zone. Thus, drop-off/pick-up queues totaling up to 20 vehicles could be accommodated on site without extending back on to Garden Street. Furthermore, the site plan shows there is space for approximately 16 vehicles to queue between the end of the student loading zone and the exit, providing ample space to accommodate queues for vehicles waiting to turn onto Garden Street without interfering with or delaying drop-off and pick-up operations.

Drop-off and Pick-up

The length of vehicle queues at the proposed KIPP school was estimated based on Hexagon's observations at Rocketship Mateo Sheedy Elementary and Rocketship Si Se Puede Academy in San Jose. While the students at these schools are younger than students at the proposed KIPP high school, these schools are comparable in that they are all charter schools serving disadvantaged communities with similar transportation characteristics. Furthermore, KIPP high schools have very few student drivers (averaging only 3 percent of students who drive to/from school), thus most students walk, bike, or ride with parents to and from school similar to the observed elementary schools. The queue length estimates take into account the number of students arriving and departing per hour (450 students, which excludes 200 students that would use the KIPP bus service) and the length of the student loading zone (five vehicles). It is estimated that 775 feet of queuing space (for 31 vehicles) would be needed for drop-off operations before school and 700 feet of queue storage (for 28 vehicles) would be needed for pick-up operations after school. Therefore, as presently proposed, the project would cause vehicle queues to extend on to Garden Street during the peak periods before and after school. The queuing issue could affect access to and from some of the adjacent residences on Garden Street but would not affect traffic flow on Clarke or Pulgas Avenues.

> **Recommendation:** It is recommended that the student loading zone be lengthened to the maximum possible distance. It is estimated that extending that student loading zone by 75 feet (from five to eight vehicles) would prevent queues from extending onto Garden Street. Furthermore, measures should be taken to ensure efficient utilization of on-site queuing space to minimize disruptions to traffic flow on Garden Street. Thus, KIPP Charter High School should implement appropriate signage, striping and/or traffic attendants to encourage drivers to not disrupt the flow of traffic into and out of the site during peak drop-off and pick-up times. It is recommended that staff members be stationed along the length of the student loading zone to facilitate traffic circulation. School staff or volunteers should direct traffic as they approach the loading zone to ensure vehicles pull as far forward as possible and stop to drop off and pick up in the right lane to maintain the traffic flow through the site in the left lane. Staff or volunteers should also ensure that parents do not leave their vehicles unattended in the loading zone while they visit the school and direct parents to load/unload students in a timely manner and then exit the loading zone. Parents that need additional time, for example to complete a phone call or to communicate with students, before leaving the site should be directed to park in the designated on-site parking spaces to ensure the loading zone is available for its intended purpose.

Parking Analysis

Vehicular Parking

Parking needs for high schools vary greatly from one site to the next based in large part on the number of students that drive to and from school. Data from KIPP's other high schools shows that, on average, only about five percent of their students drive. Furthermore, KIPP may implement a policy prohibiting students from driving themselves to the proposed school in East Palo Alto. Thus, the parking analysis was conducted both with and without a policy prohibiting student driving. The expected parking demand was calculated for KIPP school under two time periods: 1) during typical school days, and 2) during evening/weekend events.

City of East Palo Alto Parking Code Requirements

The required parking supply was determined using the parking rates specified in the East Palo Alto Municipal Code Section 18.30.050 (A) and adjustments to reflect KIPP Charter High School's assumed student driver percentage (see Table 9). For high schools, the City Code requires 1 parking space per classroom, 1 space per 5 students at maximum enrollment, 1 space per 240 square feet of office space, and 1 space per 100 square feet for multipurpose rooms. The proposed school would have 19 classrooms, 2,338 square feet of office space, 9,000 square feet of multipurpose rooms, and an enrollment of 450 students (excluding 200 students expected to utilize the KIPP bus service). The City's parking requirement of 1 space per 5 students assumes a much higher rate of student drivers (20 percent) than that expected at the proposed KIPP school (0 - 3 percent). Therefore, the parking requirement for student drivers was calculated based on the expected number of student drivers at the proposed school. If students are permitted to drive to school, 14 spaces would be required for students (450 students * 0.03 student driver ratio). Combined with the parking space requirements calculated based on the number of classrooms and the size of office space, the proposed school would require 43 parking spaces during the school day. If the school were to prohibit students from driving, the school would require 29 parking spaces during the school day. Based on the size of the multipurpose room space, the school would require 90 parking spaces during school events on evenings or weekends.

Table 9
Parking Requirements

Land Use	Size	Requirement[1]	Required Number of Spaces	
			With Student Drivers	Without Student Drivers
Mid Day Parking Requirement				
Classroom[1]	19 rooms	1 space per classroom	19	19
Office[1]	2,338 s.f.	1 space per 240 s.f.	10	10
Students[2]	450 students	1 space per student driver	14	0
Mid Day Parking Total			***43***	***29***
Evening/Weekend Parking Requirement				
Multipurpose Room[1]	9,000 s.f.	1 space per 100 s.f.	90	90
Evening/Weekend Parking Total			**90**	**90**

Notes:
1. Parking rate requirements per East Palo Alto Zoning Code Section 18.30.050 (A).
2. Enrollment shown above excludes 200 students that would use KIPP bus service. KIPP Charter High School expects 3% of non-bussed students to drive. Based on East Palo Alto Zoning Code, which assumes 20% of students drive at a typical high school (requiring 1 space per 5 students), 90 spaces would be required for student drivers.

Parking Supply

The school would provide a total of 52 parking spaces, which would meet the parking requirements for mid-day use with or without student drivers (43 and 29 spaces, respectively). During evening/weekend events, the proposed number of parking spaces would not meet the parking requirement of 90 spaces.

Schools commonly rely on on-street parking during special events on weekday evenings and weekends as it is not an efficient use of space to provide on-site parking to accommodate the parking demand for large events that occur only a few days each year. However, parking occupancy on residential streets in East Palo Alto is quite high such that parents may have difficulty finding a parking space within walking distance of the school. This could lead parents to park illegally in fire lanes on site or blocking residential driveways on Garden Street. The usage of on-street parking by the school during special events would also adversely affect neighbors on Garden Street, reducing the parking available for use by residents and residential guests.

> **Recommendation:** In order to prevent such parking issues during all-school special events on weekday evenings and weekends, the school should secure rights to utilize parking at a parcel near the proposed KIPP site or host such events off-site at a location with ample parking.

Furthermore, because the adequacy of parking during the school day is based on the assumption that at most 14 students drive to school, it is recommended that the school establish a parking permit system for student drivers to ensure that a greater than expected number of student drivers does not adversely impact parking conditions on Garden Street during typical school hours.

> **Recommendation:** School staff should monitor on-street parking on Garden Street before and after school to identify if any students are violating student driving and parking policies with appropriate penalties to be issued by the school.

The site plan does not show the dimensions of vehicle parking spaces. Prior to final design, the vehicle parking space dimensions should be labeled to confirm that they comply with City of East Palo Alto standards.

Bicycle Parking

As specified in the East Palo Alto Municipal Code Section 18.30.120, designated, safe, and secure bicycle parking facilities shall be provided for all applicable uses in compliance with the Santa Clara County Valley Transportation Authority, *Bicycle Technical Guidelines* (December 13, 2017). Based on the VTA Bicycle Guidelines, the school should provide 1 space per 30 employees plus 1 space per 12 students, with 50% Class I (long-term secure bicycle parking) and 50% Class II (short-term bicycle racks) spaces. Therefore, the proposed school would be required to provide 40 bicycle parking spaces: 2 spaces for employees and 38 spaces for students, with 20 Class I spaces and 20 Class II spaces. KIPP's TDM Plan states that KIPP will provide bicycle racks but the site plan does not show where existing and proposed bicycle parking spaces would be located.

> **Recommendation:** Long-term (Class I) and short-term (Class II) bicycle parking should be provided in accordance with the bicycle parking requirements set forth in the East Palo Alto Municipal Code.

KIPP Charter High School Development Transportation Analysis

Technical Appendices

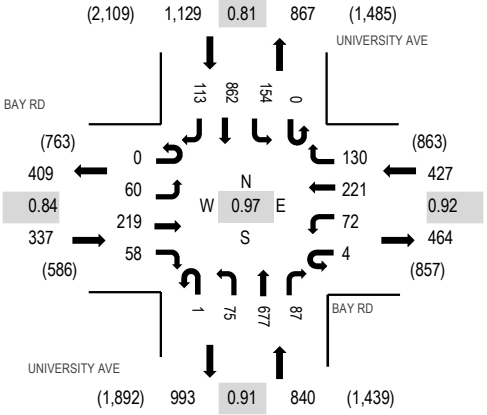
Appendix A

Traffic Counts

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

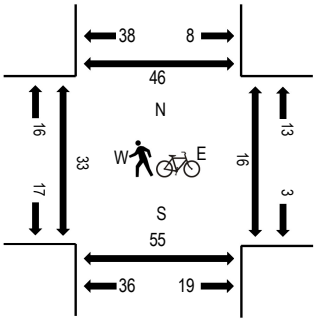
Location: 1 UNIVERSITY AVE & BAY RD AM
Date: Wednesday, April 17, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	10	33	6	1	30	27	26	0	17	96	39	0	30	229	9	553	2,264	4	0	4	5
7:15 AM	0	10	46	8	0	30	45	44	0	18	88	19	0	22	184	8	522	2,404	8	0	9	1
7:30 AM	0	11	39	10	1	26	50	26	0	16	120	17	0	33	194	33	576	2,530	3	0	3	4
7:45 AM	0	15	56	5	1	15	66	48	0	22	124	23	0	33	162	43	613	2,638	4	0	10	3
8:00 AM	0	15	71	8	2	21	67	37	0	26	162	23	0	50	153	58	693	2,733	7	6	14	13
8:15 AM	0	24	66	18	2	14	65	27	0	17	154	28	0	36	168	29	648		6	6	27	14
8:30 AM	0	14	56	14	0	19	52	43	1	15	160	22	0	41	230	17	684		10	1	5	5
8:45 AM	0	7	26	18	0	18	37	23	0	17	201	14	0	27	311	9	708		7	3	7	7

Peak Rolling Hour Flow Rates

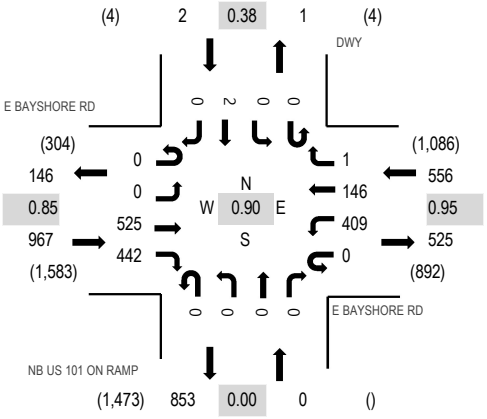
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	3	0	2	0	0	1	1	0	1	2	0	10
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	59	213	56	4	65	215	123	1	72	662	84	0	147	830	110	2,641
Mediums	0	1	6	2	0	4	6	5	0	3	14	2	0	6	30	3	82
Total	0	60	219	58	4	72	221	130	1	75	677	87	0	154	862	113	2,733

All Traffic Data Services Inc.

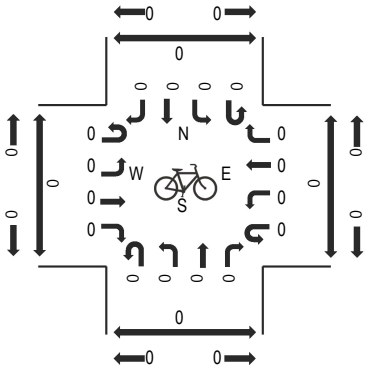
(303) 216-2439
www.alltrafficdata.net

Location: 6 NB US 101 ON RAMP & E BAYSHORE RD AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

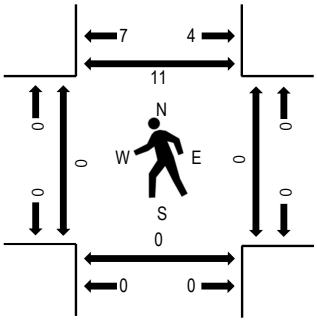
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				NB US 101 ON RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	126	97	0	111	34	1	0	0	0	0	0	0	0	0	369	1,525	0	0	0	3
7:15 AM	0	0	143	127	0	105	38	0	0	0	0	0	0	0	0	0	413	1,401	0	0	0	5
7:30 AM	0	0	152	132	0	107	32	0	0	0	0	0	0	0	0	0	423	1,299	0	0	0	3
7:45 AM	0	0	104	86	0	86	42	0	0	0	0	0	0	0	2	0	320	1,178	0	0	0	0
8:00 AM	0	0	74	50	0	71	49	1	0	0	0	0	0	0	0	0	245	1,148	0	0	0	3
8:15 AM	0	0	102	67	0	100	41	0	0	0	0	0	0	0	1	0	311		0	0	0	3
8:30 AM	0	0	101	64	0	106	29	2	0	0	0	0	0	0	0	0	302		0	0	0	2
8:45 AM	0	0	90	68	0	93	38	0	0	0	0	0	0	0	0	1	290		0	0	0	1

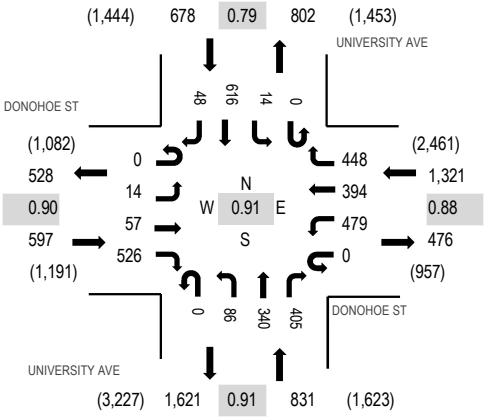
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	509	433	0	400	142	1	0	0	0	0	0	0	2	0	1,487
Mediums	0	0	16	8	0	6	4	0	0	0	0	0	0	0	0	0	34
Total	0	0	525	442	0	409	146	1	0	0	0	0	0	0	2	0	1,525

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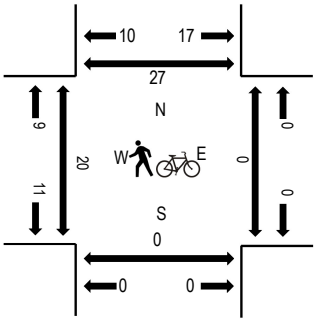
Location: 2 UNIVERSITY AVE & DONOHOE ST AM
Date: Wednesday, April 17, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	25	96	0	91	105	89	0	12	57	87	0	10	223	10	806	3,292	4	0	0	3
7:15 AM	0	1	20	142	0	93	117	81	0	16	64	104	0	3	199	19	859	3,226	7	0	0	2
7:30 AM	0	4	10	149	0	95	105	66	0	13	92	98	0	1	170	8	811	3,205	1	0	0	5
7:45 AM	0	2	10	134	0	105	107	86	0	30	108	111	0	2	109	12	816	3,301	7	0	0	4
8:00 AM	0	1	10	103	0	119	82	99	0	22	92	118	0	0	82	12	740	3,427	4	0	0	8
8:15 AM	0	8	19	133	0	88	95	97	0	32	92	98	0	3	160	13	838		0	0	0	1
8:30 AM	0	3	9	146	0	135	118	111	0	18	64	101	0	6	184	12	907		0	0	0	5
8:45 AM	0	2	19	144	0	137	99	141	0	14	92	88	0	5	190	11	942		2	0	0	2

Peak Rolling Hour Flow Rates

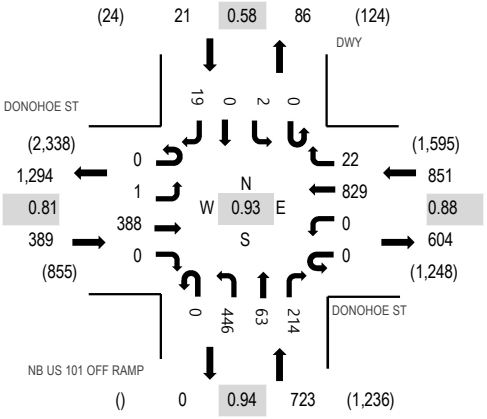
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	2	1	2	0	0	1	1	0	0	4	0	11
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	14	57	517	0	471	385	435	0	82	331	394	0	14	591	48	3,339
Mediums	0	0	0	9	0	6	8	11	0	4	8	10	0	0	21	0	77
Total	0	14	57	526	0	479	394	448	0	86	340	405	0	14	616	48	3,427

All Traffic Data Services Inc.

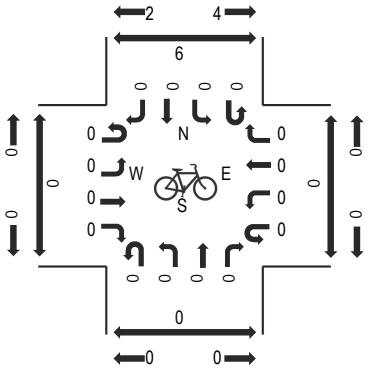
(303) 216-2439
www.alltrafficdata.net

Location: 3 NB US 101 OFF RAMP & DONOHOE ST AM
Date: Tuesday, May 21, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

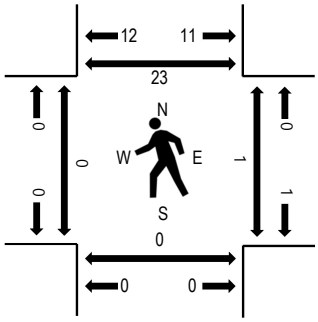
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				NB US 101 OFF RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	109	0	0	0	188	1	0	77	6	37	0	0	0	0	418	1,726	0	0	0	5
7:15 AM	0	0	143	0	0	0	217	2	0	82	2	40	0	0	0	1	487	1,729	0	0	0	5
7:30 AM	0	0	106	0	0	0	180	2	0	80	8	48	0	0	0	0	424	1,755	0	0	0	9
7:45 AM	0	0	108	0	0	0	148	6	0	69	11	53	0	0	0	2	397	1,862	0	0	0	5
8:00 AM	0	0	88	0	0	0	147	1	0	112	11	58	0	0	0	4	421	1,984	0	0	0	5
8:15 AM	0	0	115	0	0	0	219	5	0	93	16	59	0	0	0	6	513		0	0	0	8
8:30 AM	0	1	98	0	0	0	230	8	0	129	16	47	0	0	0	2	531		0	0	0	9
8:45 AM	0	0	87	0	0	0	233	8	0	112	20	50	0	2	0	7	519		0	1	0	1

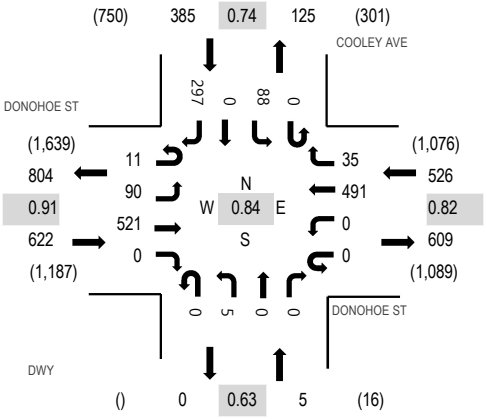
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	4
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	1	376	0	0	0	811	22	0	435	63	213	0	2	0	18	1,941
Mediums	0	0	10	0	0	0	17	0	0	10	0	1	0	0	0	1	39
Total	0	1	388	0	0	0	829	22	0	446	63	214	0	2	0	19	1,984

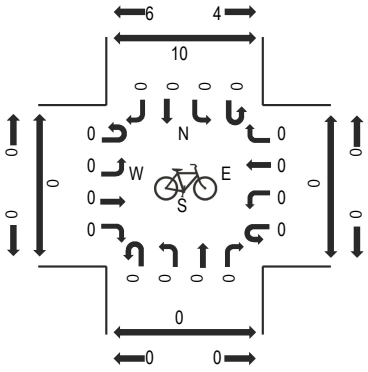
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 2 DWY & DONOHOE ST AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

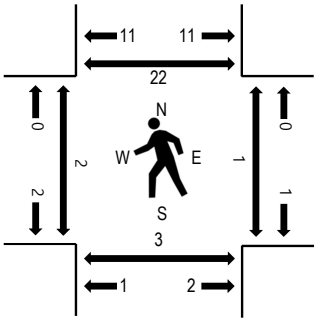
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				DWY Northbound				COOLEY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	17	120	0	0	0	136	14	0	0	0	0	0	30	0	62	380	1,538	0	0	0	4
7:15 AM	2	21	151	0	0	0	146	9	0	0	0	0	0	38	0	92	459	1,475	2	0	2	7
7:30 AM	2	20	133	0	0	0	131	7	0	2	0	0	0	11	0	59	365	1,381	0	0	0	7
7:45 AM	6	32	117	0	0	0	78	5	0	3	0	0	0	9	0	84	334	1,439	0	1	1	4
8:00 AM	3	40	106	0	0	0	102	3	0	4	0	0	0	7	0	52	317	1,491	0	0	0	5
8:15 AM	4	35	113	0	0	0	126	1	0	6	0	0	0	8	0	72	365		0	0	0	8
8:30 AM	6	35	100	0	0	0	157	11	0	0	0	0	0	24	0	90	423		1	0	0	9
8:45 AM	3	37	83	0	0	0	136	14	0	1	0	0	0	39	0	73	386		1	0	0	3

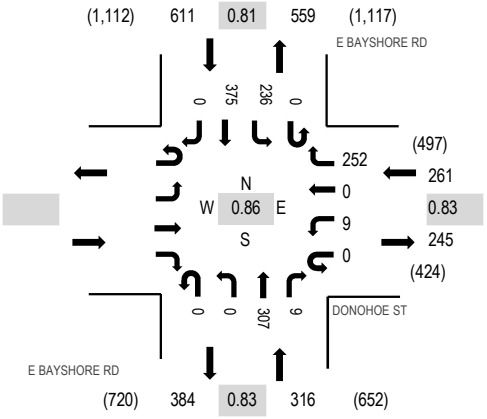
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	11	88	496	0	0	0	478	34	0	5	0	0	0	86	0	297	1,495
Mediums	0	2	25	0	0	0	12	0	0	0	0	0	0	2	0	0	41
Total	11	90	521	0	0	0	491	35	0	5	0	0	0	88	0	297	1,538

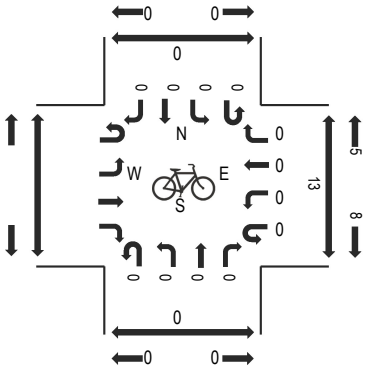
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 7 E BAYSHORE RD & DONOHOE ST AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

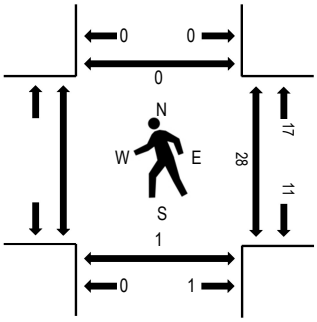
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				E BAYSHORE RD Northbound				E BAYSHORE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	3	0	62	0	0	91	3	0	46	104	0	309	1,188		9	0	0
7:15 AM					0	0	0	79	0	0	76	1	0	82	106	0	344	1,120		7	0	0
7:30 AM					0	4	0	64	0	0	74	1	0	59	87	0	289	1,038		4	0	0
7:45 AM					0	2	0	47	0	0	66	4	0	49	78	0	246	1,040		8	1	0
8:00 AM					0	3	0	44	0	0	67	2	0	47	78	0	241	1,073		4	0	0
8:15 AM					0	4	0	50	0	0	78	1	1	41	87	0	262			4	1	0
8:30 AM					0	0	0	68	0	0	100	1	0	44	78	0	291			2	0	0
8:45 AM					0	1	0	66	0	0	84	3	0	40	85	0	279			1	0	0

Peak Rolling Hour Flow Rates

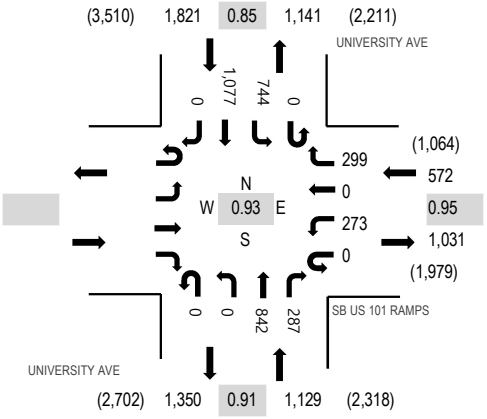
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	5	0	0	1	4	0	10
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	9	0	246	0	0	292	6	0	226	353	0	1,132
Mediums					0	0	0	6	0	0	10	3	0	9	18	0	46
Total					0	9	0	252	0	0	307	9	0	236	375	0	1,188

All Traffic Data Services Inc.

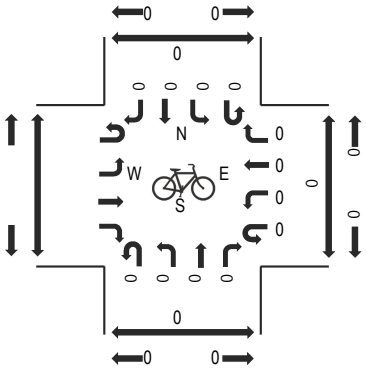
(303) 216-2439
www.alltrafficdata.net

Location: 8 UNIVERSITY AVE & SB US 101 RAMPS AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

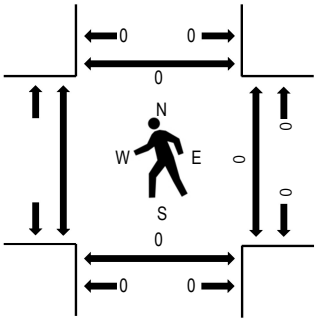
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Eastbound				SB US 101 RAMPS Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	64	0	73	0	0	169	58	0	187	259	0	810	3,522		0	0	0
7:15 AM					0	70	0	80	0	0	204	56	0	221	316	0	947	3,481		0	0	0
7:30 AM					0	66	0	76	0	0	199	86	0	201	281	0	909	3,463		0	0	0
7:45 AM					0	73	0	70	0	0	270	87	0	135	221	0	856	3,418		0	0	0
8:00 AM					0	61	0	66	0	0	213	97	0	104	228	0	769	3,370		0	0	0
8:15 AM					0	54	0	64	0	0	230	112	0	152	317	0	929			0	0	0
8:30 AM					0	48	0	83	0	0	177	98	0	161	297	0	864			0	0	0
8:45 AM					0	59	0	57	0	0	180	82	0	142	288	0	808			0	0	0

Peak Rolling Hour Flow Rates

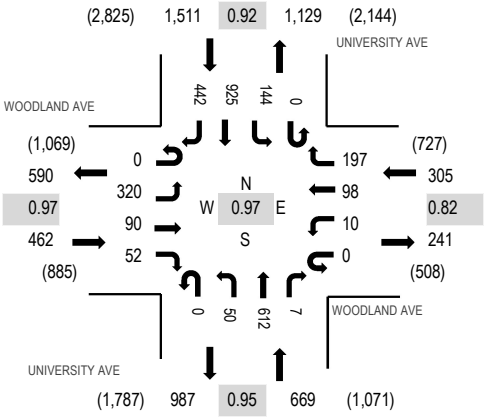
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	1	0	0	3	0	0	4
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	263	0	292	0	0	824	283	0	723	1,040	0	3,425
Mediums					0	10	0	7	0	0	17	4	0	18	37	0	93
Total					0	273	0	299	0	0	842	287	0	744	1,077	0	3,522

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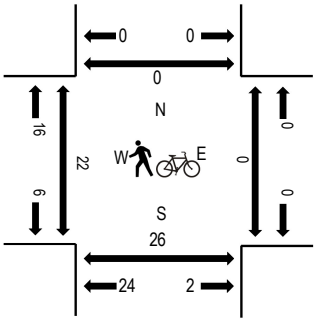
Location: 3 UNIVERSITY AVE & WOODLAND AVE AM
Date: Wednesday, April 17, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	67	10	10	0	5	13	62	0	4	67	5	0	55	185	72	555	2,561	5	0	6	0
7:15 AM	0	82	15	5	0	2	16	111	0	6	75	3	0	45	170	97	627	2,731	8	0	7	0
7:30 AM	0	91	17	13	0	5	20	86	0	10	103	0	0	49	199	94	687	2,863	10	0	18	0
7:45 AM	0	81	19	13	0	7	21	74	0	10	116	3	0	46	186	116	692	2,891	6	0	8	0
8:00 AM	0	86	20	11	0	4	21	56	0	11	154	3	0	33	222	104	725	2,947	3	0	7	0
8:15 AM	0	85	22	15	0	2	32	69	0	13	151	2	0	34	216	118	759		3	0	4	0
8:30 AM	0	78	23	15	0	2	26	40	0	11	148	0	0	40	225	107	715		0	0	3	0
8:45 AM	0	71	25	11	0	2	19	32	0	15	159	2	0	37	262	113	748		4	0	4	0

Peak Rolling Hour Flow Rates

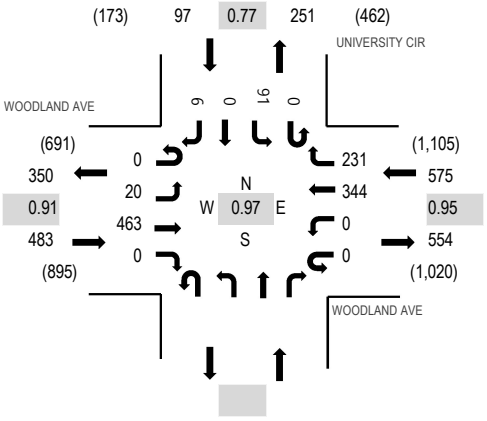
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	315	87	48	0	9	94	192	0	49	596	6	0	139	903	432	2,870
Mediums	0	5	3	4	0	1	4	5	0	1	16	1	0	4	21	10	75
Total	0	320	90	52	0	10	98	197	0	50	612	7	0	144	925	442	2,947

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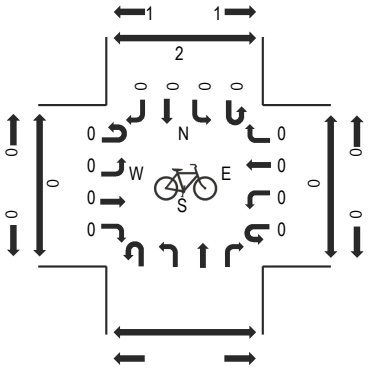
(303) 216-2439
www.alltrafficdata.net

Location: 9 UNIVERSITY CIR & WOODLAND AVE AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

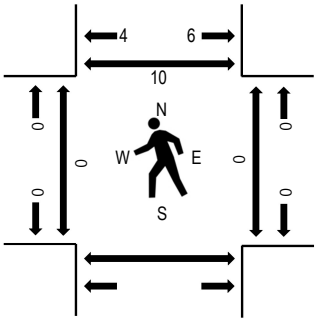
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				UNIVERSITY CIR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	83	0	0	0	60	39					0	15	0	2	200	1,031	0	0		0
7:15 AM	0	5	106	0	0	0	91	45					0	18	0	2	267	1,103	1	0		4
7:30 AM	0	4	108	0	0	0	100	48					0	11	0	1	272	1,133	0	0		1
7:45 AM	0	4	128	0	0	0	84	53					0	22	0	1	292	1,155	0	0		3
8:00 AM	0	4	117	0	0	0	74	61					0	16	0	0	272	1,142	0	0		3
8:15 AM	0	8	110	0	0	0	85	69					0	22	0	3	297		0	0		1
8:30 AM	0	4	108	0	0	0	101	48					0	31	0	2	294		0	0		3
8:45 AM	0	6	99	0	1	0	83	63					0	25	0	2	279		0	0		5

Peak Rolling Hour Flow Rates

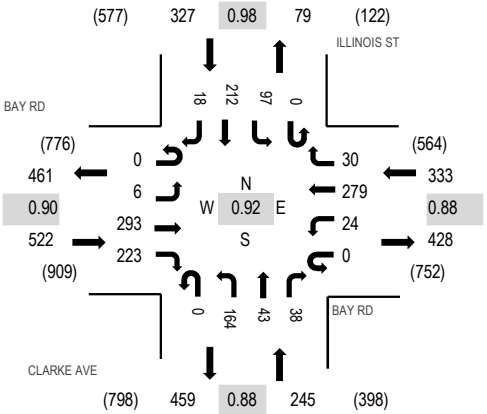
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	1					0	0	0	0	3
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	20	453	0	0	0	332	228					0	90	0	6	1,129
Mediums	0	0	9	0	0	0	11	2					0	1	0	0	23
Total	0	20	463	0	0	0	344	231					0	91	0	6	1,155

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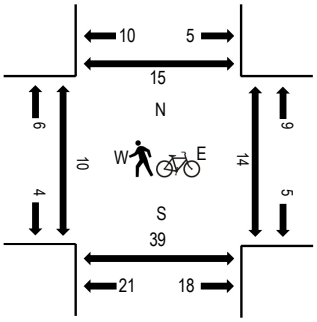
Location: 2 CLARKE AVE & BAY RD AM
Date: Thursday, May 9, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				CLARKE AVE Northbound				ILLINOIS ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	65	32	1	0	31	2	0	11	3	4	1	13	43	5	211	1,174	1	0	5	2
7:15 AM	0	2	57	40	0	9	47	4	0	34	4	1	0	24	47	8	277	1,349	0	1	9	2
7:30 AM	0	3	67	54	0	2	70	9	0	33	7	8	0	24	53	6	336	1,427	1	0	15	0
7:45 AM	0	2	74	47	0	6	66	3	0	57	5	8	0	24	51	7	350	1,385	1	6	11	3
8:00 AM	0	1	79	65	0	7	78	10	0	35	15	13	0	29	53	1	386	1,274	2	3	3	2
8:15 AM	0	0	73	57	0	9	65	8	0	39	16	9	0	20	55	4	355		3	4	6	9
8:30 AM	0	1	70	39	1	11	67	4	0	26	9	9	0	10	43	4	294		1	3	1	1
8:45 AM	0	3	41	37	1	8	43	2	0	36	8	8	0	19	30	3	239		0	3	4	5

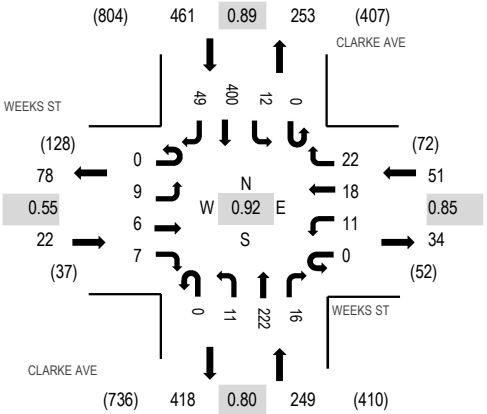
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	1	0	0	1	0	0	1	0	1	0	0	1	0	6
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	6	278	219	0	22	262	27	0	157	42	36	0	97	209	18	1,373
Mediums	0	0	14	3	0	2	16	3	0	6	1	1	0	0	2	0	48
Total	0	6	293	223	0	24	279	30	0	164	43	38	0	97	212	18	1,427

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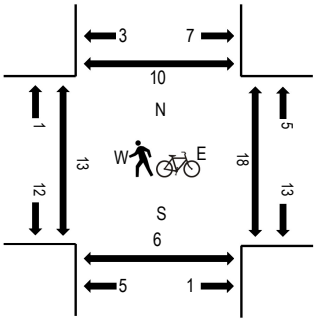
Location: 7 CLARKE AVE & WEEKS ST AM
Date: Thursday, May 9, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WEEKS ST Eastbound				WEEKS ST Westbound				CLARKE AVE Northbound				CLARKE AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	0	4	0	2	4	0	1	3	16	0	1	1	69	5	107	628	5	1	0	0
7:15 AM	0	1	1	3	0	0	4	1	0	2	40	0	0	1	82	13	148	733	5	0	0	1
7:30 AM	0	6	3	2	0	2	6	3	0	2	40	1	0	0	98	15	178	783	3	5	3	5
7:45 AM	0	0	1	2	0	4	4	4	0	3	72	4	0	4	88	9	195	754	4	2	1	2
8:00 AM	0	1	1	0	0	3	6	4	0	1	58	9	0	4	107	18	212	695	5	2	1	0
8:15 AM	0	2	1	3	0	2	2	11	0	5	52	2	0	4	107	7	198		1	7	1	2
8:30 AM	0	0	1	1	0	2	1	1	0	1	43	2	0	3	87	7	149		1	3	0	0
8:45 AM	0	1	1	1	0	4	1	1	0	1	47	5	1	3	62	8	136		0	1	0	0

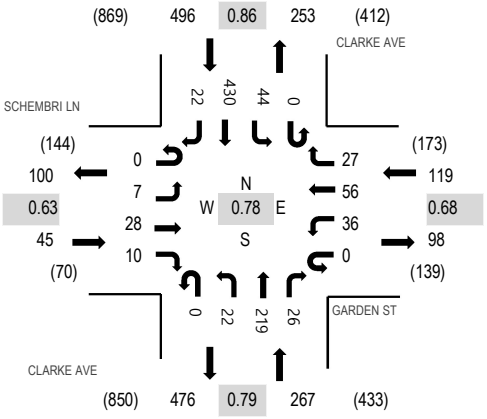
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	7	6	7	0	11	18	21	0	10	217	16	0	12	394	44	763
Mediums	0	2	0	0	0	0	0	1	0	1	4	0	0	0	5	4	17
Total	0	9	6	7	0	11	18	22	0	11	222	16	0	12	400	49	783

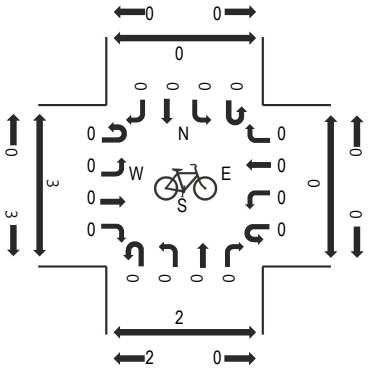
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Location: 13 CLARKE AVE & GARDEN ST AM
Date: Tuesday, May 21, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

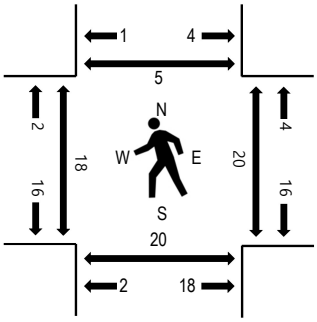
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SCHEMBRI LN Eastbound				GARDEN ST Westbound				CLARKE AVE Northbound				CLARKE AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	4	4	0	3	6	2	0	1	26	3	0	5	68	7	131	826	3	1	3	1
7:15 AM	0	1	1	3	0	15	8	3	0	4	27	5	0	4	96	4	171	909	2	5	3	0
7:30 AM	0	3	8	3	0	10	20	8	0	6	53	6	0	14	93	4	228	927	4	4	4	2
7:45 AM	0	1	13	5	0	15	22	12	0	7	62	15	0	24	112	8	296	888	2	4	4	2
8:00 AM	0	3	5	1	0	4	10	6	0	7	51	2	0	3	116	6	214	719	5	4	4	0
8:15 AM	0	0	2	1	0	7	4	1	0	2	53	3	0	3	109	4	189		7	8	8	1
8:30 AM	0	2	5	1	0	5	5	2	0	1	60	3	0	2	99	4	189		2	5	4	0
8:45 AM	0	0	1	1	0	3	1	1	0	0	33	3	0	5	76	3	127		1	2	1	0

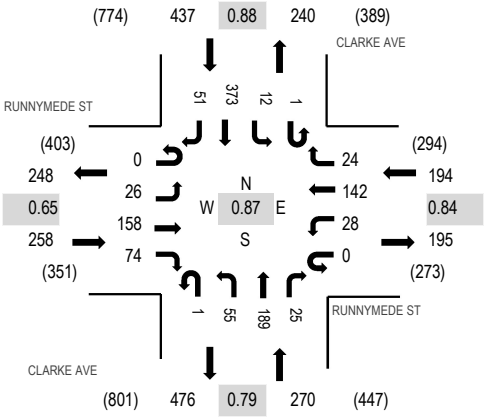
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	7	28	10	0	35	56	27	0	22	213	26	0	44	417	22	907
Mediums	0	0	0	0	0	1	0	0	0	0	6	0	0	0	13	0	20
Total	0	7	28	10	0	36	56	27	0	22	219	26	0	44	430	22	927

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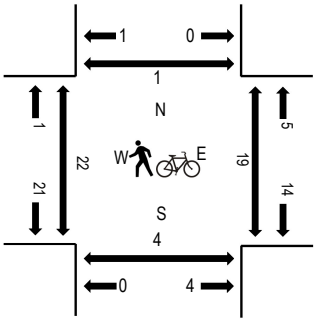
Location: 8 CLARKE AVE & RUNNYMEDE ST AM
Date: Thursday, May 9, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	RUNNYMEDE ST Eastbound				RUNNYMEDE ST Westbound				CLARKE AVE Northbound				CLARKE AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	12	8	0	5	18	2	1	5	14	8	1	3	56	16	151	937	13	2	1	8
7:15 AM	0	3	19	8	0	5	27	3	0	2	29	3	0	0	85	15	199	1,100	6	2	1	5
7:30 AM	0	4	28	18	0	5	43	3	0	7	34	5	1	1	85	19	253	1,159	6	6	0	0
7:45 AM	0	7	71	22	0	7	37	8	1	21	59	10	0	3	79	9	334	1,115	3	2	2	0
8:00 AM	0	10	38	11	0	10	41	7	0	16	51	6	0	5	110	9	314	929	5	4	0	0
8:15 AM	0	5	21	23	0	6	21	6	0	11	45	4	0	3	99	14	258		5	4	1	1
8:30 AM	0	1	13	15	0	3	17	3	0	18	42	2	0	5	78	12	209		1	3	0	0
8:45 AM	0	3	6	3	0	4	11	2	0	5	44	4	0	3	54	9	148		1	1	0	0

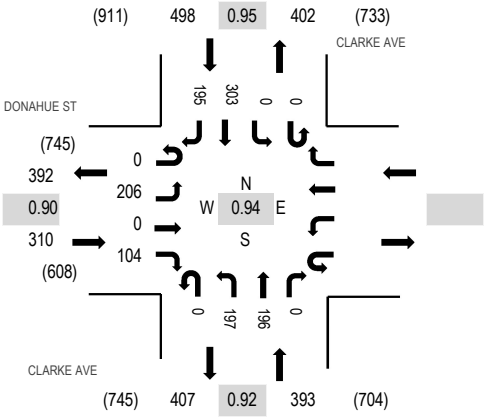
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	26	156	72	0	24	139	22	1	54	186	22	1	12	368	51	1,134
Mediums	0	0	2	2	0	4	3	1	0	1	3	3	0	0	4	0	23
Total	0	26	158	74	0	28	142	24	1	55	189	25	1	12	373	51	1,159

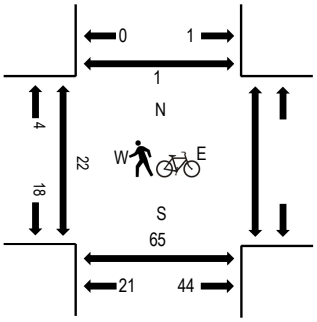
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Location: 3 CLARKE AVE & DONAHUE ST AM
Date: Thursday, May 9, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONAHUE ST Eastbound				Westbound				CLARKE AVE Northbound				CLARKE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	47	0	19					0	47	16	0	0	0	45	32	206	1,120	3		4	0
7:15 AM	0	58	0	24					0	61	30	0	0	0	80	53	306	1,194	3		2	2
7:30 AM	0	63	0	23					0	57	50	0	0	0	78	48	319	1,201	4		5	0
7:45 AM	0	69	0	21					0	39	43	0	0	0	60	57	289	1,191	9		21	0
8:00 AM	0	32	0	20					0	43	57	0	0	0	85	43	280	1,103	3		17	0
8:15 AM	0	42	0	40					0	58	46	0	0	0	80	47	313		6		21	1
8:30 AM	0	54	0	26					0	48	56	0	0	0	79	46	309		3		27	0
8:45 AM	0	49	0	21					0	32	21	0	0	0	44	34	201		2		6	0

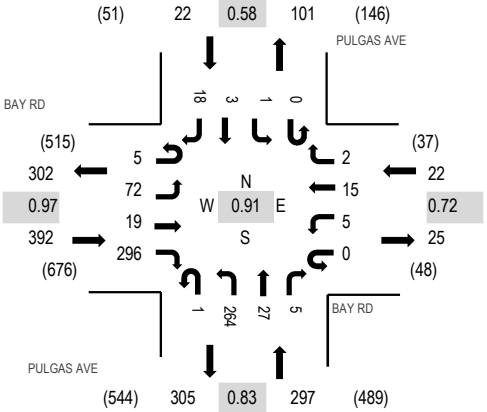
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0					0	1	0	0	0	0	1	0	2
Bicycles on Road	0	0	0	0					0	0	0	0	0	0	0	0	0
Lights	0	201	0	99					0	194	189	0	0	0	298	192	1,173
Mediums	0	5	0	5					0	2	7	0	0	0	4	3	26
Total	0	206	0	104					0	197	196	0	0	0	303	195	1,201

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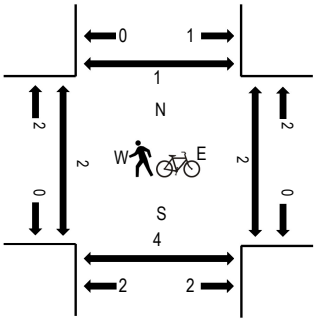
Location: 1 PULGAS AVE & BAY RD AM
Date: Thursday, February 28, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	11	4	38	0	0	0	0	0	31	2	1	0	0	3	4	94	609	1	0	1	0
7:15 AM	1	9	3	64	0	2	2	0	0	52	2	1	0	0	1	5	142	700	0	0	0	1
7:30 AM	1	17	3	74	0	0	6	2	1	54	10	0	0	1	0	2	171	733	2	0	0	0
7:45 AM	1	21	5	74	0	1	3	0	0	82	7	1	0	0	0	7	202	723	0	0	2	1
8:00 AM	2	25	5	68	0	2	5	0	0	65	4	2	0	0	3	4	185	644	0	2	2	0
8:15 AM	1	9	6	80	0	2	1	0	0	63	6	2	0	0	0	5	175		0	0	0	0
8:30 AM	2	10	5	75	0	0	4	0	0	55	3	3	0	0	1	3	161		0	0	0	0
8:45 AM	2	6	5	49	0	4	3	0	0	39	2	1	0	0	2	10	123		0	0	1	0

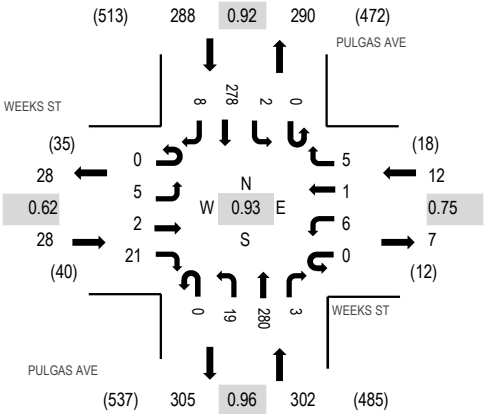
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2
Lights	5	70	18	291	0	4	14	2	1	256	25	5	0	1	3	14	709
Mediums	0	2	1	5	0	1	0	0	0	8	2	0	0	0	0	3	22
Total	5	72	19	296	0	5	15	2	1	264	27	5	0	1	3	18	733

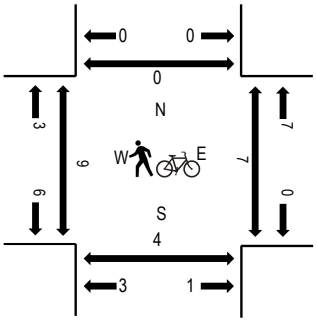
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Location: 6 PULGAS AVE & WEEKS ST AM
Date: Thursday, May 9, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WEEKS ST Eastbound				WEEKS ST Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	1	0	0	0	1	31	0	0	0	50	0	83	484	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	2	40	0	0	0	61	0	103	563	2	0	0	0
7:30 AM	0	1	0	2	0	1	0	2	0	2	69	0	0	1	76	1	155	630	2	1	0	0
7:45 AM	0	1	0	4	0	1	0	1	0	5	68	2	0	0	59	2	143	610	3	0	1	0
8:00 AM	0	0	0	7	0	2	1	0	0	8	68	1	0	0	71	4	162	572	0	0	0	0
8:15 AM	0	3	2	8	0	2	0	2	0	4	75	0	0	1	72	1	170		3	6	2	0
8:30 AM	0	1	1	1	0	1	1	0	0	1	61	0	0	1	67	0	135		0	1	0	0
8:45 AM	0	3	0	6	1	1	1	0	0	0	46	1	0	1	44	1	105		0	1	0	1

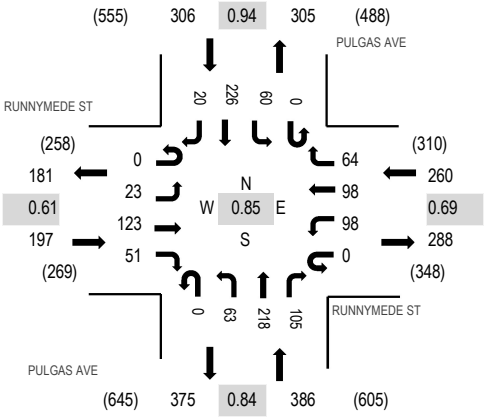
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	5	2	20	0	6	1	4	0	19	270	3	0	1	272	6	609
Mediums	0	0	0	1	0	0	0	1	0	0	10	0	0	1	6	2	21
Total	0	5	2	21	0	6	1	5	0	19	280	3	0	2	278	8	630

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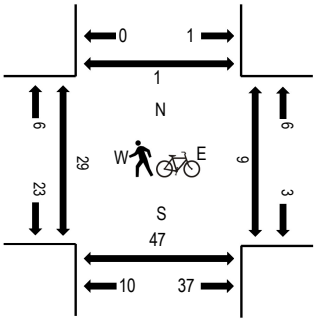
Location: 5 PULGAS AVE & RUNNYMEDE ST AM
Date: Thursday, May 9, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	RUNNYMEDE ST Eastbound				RUNNYMEDE ST Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	9	6	5	0	9	4	1	0	5	23	5	0	7	42	7	123	907	1	0	1	0
7:15 AM	0	1	10	11	0	5	6	3	0	11	37	13	0	4	54	8	163	1,089	1	0	0	0
7:30 AM	0	3	19	10	0	23	20	12	0	27	57	31	0	23	53	5	283	1,149	2	0	11	1
7:45 AM	0	10	59	12	0	30	29	20	0	12	51	49	0	23	37	6	338	1,043	19	4	24	0
8:00 AM	0	3	37	15	0	31	38	25	0	10	45	21	0	11	62	7	305	832	4	1	10	0
8:15 AM	0	7	8	14	0	14	11	7	0	14	65	4	0	3	74	2	223		2	4	1	0
8:30 AM	0	4	3	13	0	8	6	2	0	11	55	3	0	0	66	6	177		0	2	0	0
8:45 AM	0	2	3	5	0	4	0	2	1	6	44	5	0	1	47	7	127		0	0	0	0

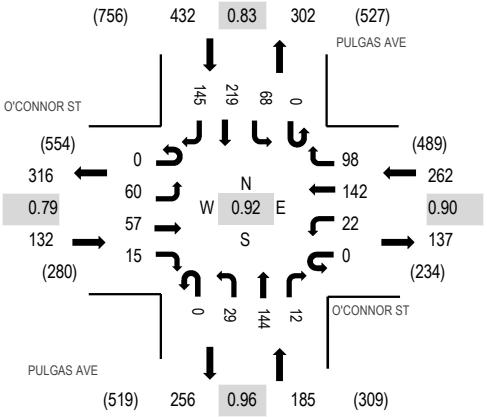
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	20	123	49	0	98	98	64	0	59	211	105	0	60	222	16	1,125
Mediums	0	3	0	2	0	0	0	0	0	4	6	0	0	0	4	4	23
Total	0	23	123	51	0	98	98	64	0	63	218	105	0	60	226	20	1,149

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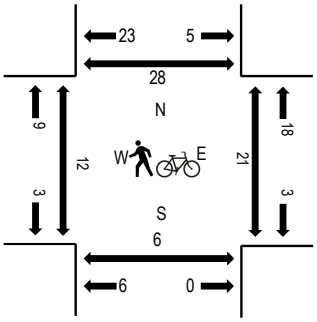
Location: 4 PULGAS AVE & O'CONNOR ST AM
Date: Thursday, May 9, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	O'CONNOR ST Eastbound				O'CONNOR ST Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	10	6	15	0	10	36	10	1	8	17	4	0	5	38	15	175	897	11	7	0	14
7:15 AM	0	23	11	13	0	17	34	18	0	3	20	4	0	10	40	30	223	949	18	5	1	14
7:30 AM	0	26	11	2	0	12	38	21	0	2	32	2	0	16	45	52	259	1,000	8	5	1	7
7:45 AM	0	18	10	4	0	6	36	32	0	7	39	1	0	15	31	41	240	1,011	1	6	0	9
8:00 AM	0	6	12	8	0	5	28	22	0	10	35	3	0	16	51	31	227	937	3	9	0	7
8:15 AM	0	18	15	1	0	3	49	25	0	8	31	7	0	19	60	38	274		3	3	3	11
8:30 AM	0	18	20	2	0	8	29	19	0	4	39	1	0	18	77	35	270		4	0	3	1
8:45 AM	0	4	19	8	0	3	14	14	0	1	30	0	0	9	59	5	166		0	3	0	3

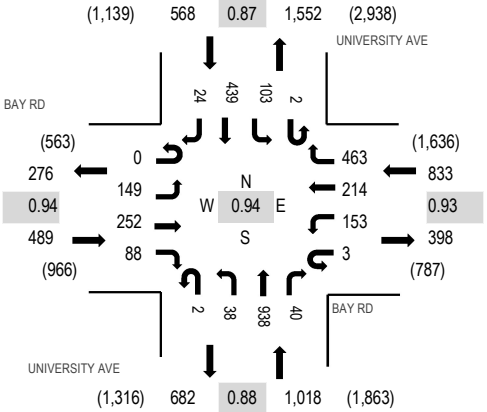
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	57	57	14	0	21	141	97	0	28	138	12	0	68	215	140	988
Mediums	0	3	0	1	0	1	1	1	0	1	6	0	0	0	4	5	23
Total	0	60	57	15	0	22	142	98	0	29	144	12	0	68	219	145	1,011

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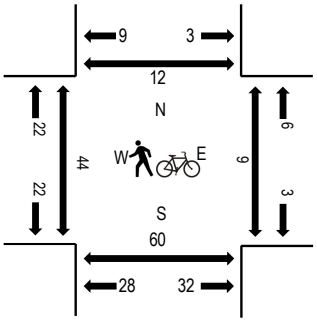
Location: 1 UNIVERSITY AVE & BAY RD PM
Date: Tuesday, April 16, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	51	65	19	1	36	47	123	1	8	213	13	0	30	87	11	705	2,876	11	4	16	11
4:15 PM	0	48	49	15	1	36	52	102	0	9	246	11	1	24	99	7	700	2,908	11	0	20	0
4:30 PM	0	36	62	30	1	36	40	146	0	13	267	12	0	29	96	4	772	2,875	6	2	9	1
4:45 PM	0	39	71	24	1	34	54	103	1	9	210	12	0	31	103	7	699	2,772	12	0	16	2
5:00 PM	0	26	70	19	0	47	68	112	1	7	215	5	1	19	141	6	737	2,728	8	3	10	8
5:15 PM	0	27	69	26	2	33	48	123	0	9	192	5	0	24	101	8	667		3	3	8	7
5:30 PM	0	28	57	19	0	31	50	111	0	4	184	8	1	24	141	11	669		7	2	9	8
5:45 PM	0	35	63	18	1	27	69	101	0	4	197	7	0	20	95	18	655		11	1	17	7

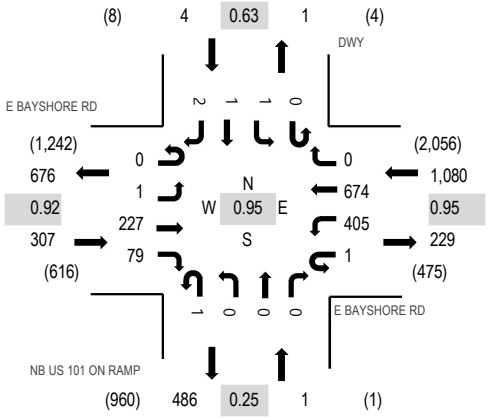
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	146	244	84	3	152	207	455	2	33	918	37	2	98	432	21	2,834
Mediums	0	3	8	4	0	1	7	8	0	5	18	2	0	5	7	3	71
Total	0	149	252	88	3	153	214	463	2	38	938	40	2	103	439	24	2,908

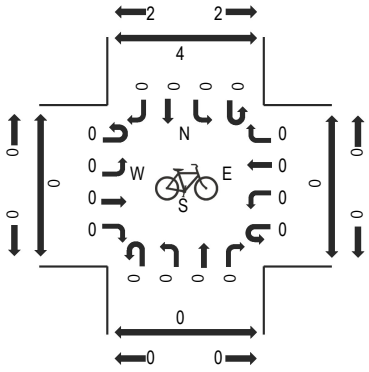
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Location: 6 NB US 101 ON RAMP & E BAYSHORE RD PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

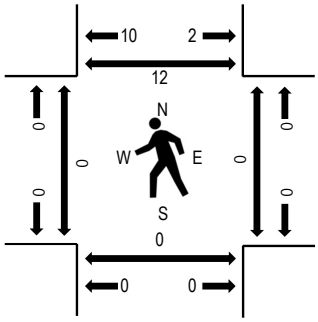
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	E BAYSHORE RD Eastbound				E BAYSHORE RD Westbound				NB US 101 ON RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	62	12	0	113	133	0	0	0	0	0	0	0	0	1	321	1,298	0	0	0	5
4:15 PM	0	0	64	15	0	105	140	2	0	0	0	0	0	1	1	0	328	1,311	0	0	0	2
4:30 PM	0	0	51	21	0	86	146	1	0	0	0	0	0	0	0	1	306	1,348	0	0	0	4
4:45 PM	0	0	55	26	0	100	161	0	0	0	0	0	0	1	0	0	343	1,392	0	0	0	1
5:00 PM	0	0	48	21	0	91	173	0	0	0	0	0	0	0	1	0	334	1,383	0	0	0	8
5:15 PM	0	0	63	16	0	114	169	0	1	0	0	0	0	0	0	2	365		0	0	0	2
5:30 PM	0	1	61	16	1	100	171	0	0	0	0	0	0	0	0	0	350		0	0	0	1
5:45 PM	0	0	68	16	0	105	145	0	0	0	0	0	0	0	0	0	334		0	0	0	5

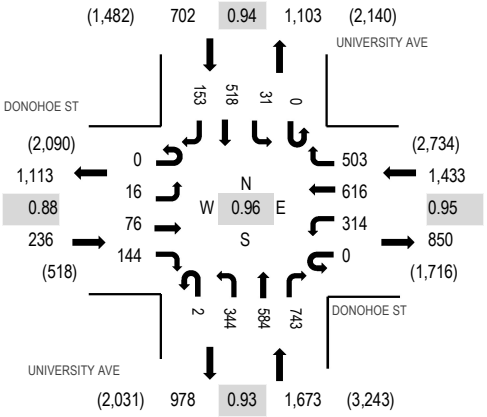
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	1	226	77	1	399	660	0	1	0	0	0	0	1	1	2	1,369
Mediums	0	0	1	2	0	6	14	0	0	0	0	0	0	0	0	0	23
Total	0	1	227	79	1	405	674	0	1	0	0	0	0	1	1	2	1,392

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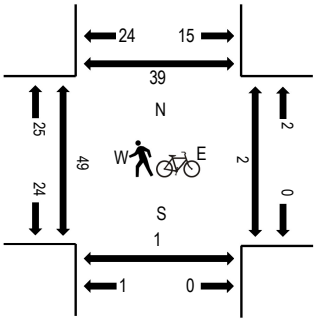
Location: 2 UNIVERSITY AVE & DONOHOE ST PM
Date: Tuesday, April 16, 2019
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	10	16	41	0	73	145	131	0	93	151	187	0	9	109	39	1,004	4,044	9	0	0	4
4:15 PM	0	1	20	40	0	94	160	122	1	82	124	188	0	6	140	36	1,014	3,998	4	0	0	5
4:30 PM	0	1	20	35	0	78	160	132	1	90	151	207	0	11	123	42	1,051	4,015	8	0	1	5
4:45 PM	0	4	20	28	0	69	151	118	0	79	158	161	0	5	146	36	975	3,951	3	0	0	6
5:00 PM	0	4	30	38	0	65	131	113	0	77	136	174	0	17	139	34	958	3,933	5	0	0	4
5:15 PM	0	3	27	50	0	78	162	116	0	60	148	180	0	10	168	29	1,031		9	0	0	8
5:30 PM	0	3	18	46	0	75	142	122	0	78	146	169	0	17	140	31	987		9	1	0	13
5:45 PM	0	1	20	42	0	56	122	119	0	80	126	196	0	8	156	31	957		8	0	0	6

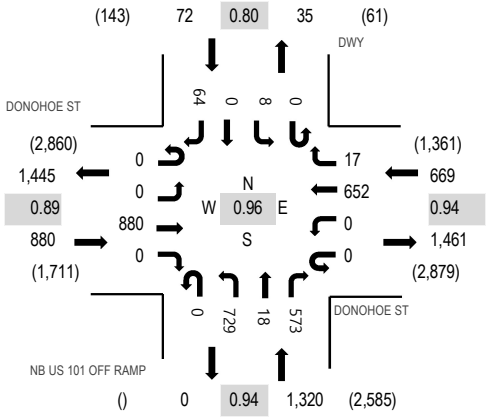
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	1	0	0	3	1	0	0	1	0	7
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	16	76	143	0	311	604	488	2	334	572	730	0	30	504	150	3,960
Mediums	0	0	0	1	0	3	11	14	0	10	9	12	0	1	13	3	77
Total	0	16	76	144	0	314	616	503	2	344	584	743	0	31	518	153	4,044

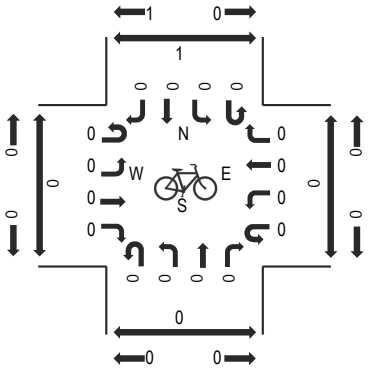
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Location: 3 NB US 101 OFF RAMP & DONOHOE ST PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

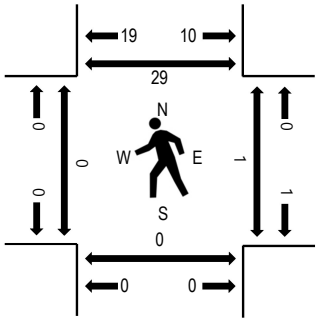
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				NB US 101 OFF RAMP Northbound				DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	211	0	0	0	162	2	0	193	6	154	0	0	0	13	741	2,935	0	0	0	10
4:15 PM	0	0	214	0	0	0	179	2	0	178	3	144	0	0	0	6	726	2,898	0	0	0	5
4:30 PM	0	0	191	0	0	0	167	2	0	179	5	162	0	0	0	13	719	2,941	0	0	0	11
4:45 PM	0	0	249	0	0	0	181	4	0	182	3	118	0	1	0	11	749	2,900	0	1	0	13
5:00 PM	0	0	216	0	0	0	146	5	0	183	5	127	0	2	0	20	704	2,865	0	0	0	0
5:15 PM	0	0	224	0	0	0	158	6	0	185	5	166	0	5	0	20	769		0	0	0	5
5:30 PM	0	0	194	0	0	0	173	7	0	148	0	135	0	1	0	20	678		0	0	0	15
5:45 PM	0	0	212	0	0	0	164	3	0	148	3	153	0	0	0	31	714		0	0	0	8

Peak Rolling Hour Flow Rates

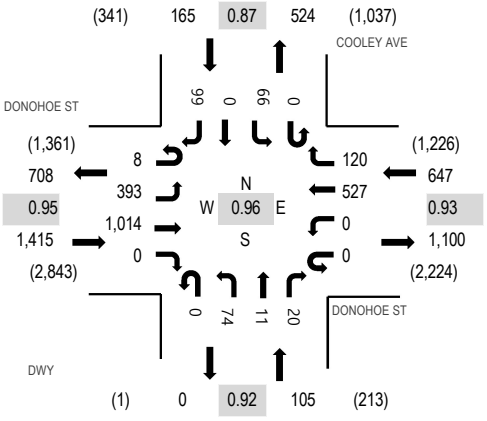
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	865	0	0	0	642	17	0	716	18	564	0	8	0	64	2,894
Mediums	0	0	15	0	0	0	10	0	0	13	0	9	0	0	0	0	47
Total	0	0	880	0	0	0	652	17	0	729	18	573	0	8	0	64	2,941

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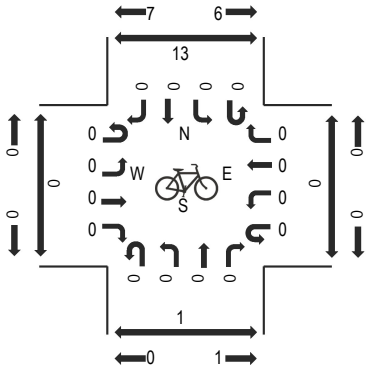
(303) 216-2439
www.alltrafficdata.net

Location: 2 DWY & DONOHOE ST PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

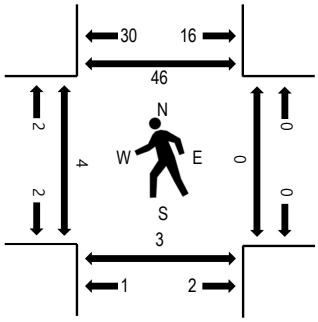
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				DWY Northbound				COOLEY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	3	110	252	1	0	0	134	31	0	15	3	5	0	16	0	19	589	2,315	0	0	1	10
4:15 PM	3	96	238	0	0	0	149	28	0	23	6	3	0	17	0	16	579	2,332	1	0	0	10
4:30 PM	1	114	241	0	0	0	130	28	0	20	1	6	0	14	0	25	580	2,314	0	0	1	10
4:45 PM	2	89	253	0	0	0	127	29	0	13	2	6	0	16	0	30	567	2,321	1	0	2	18
5:00 PM	2	94	282	0	0	0	121	35	0	18	2	5	0	19	0	28	606	2,308	2	0	0	8
5:15 PM	4	92	265	0	0	0	115	17	0	20	1	7	0	19	0	21	561		1	0	0	14
5:30 PM	5	94	243	0	0	0	137	31	0	21	1	8	0	22	0	25	587		1	0	0	14
5:45 PM	2	108	249	0	0	0	92	22	0	15	3	9	0	29	0	25	554		0	0	0	9

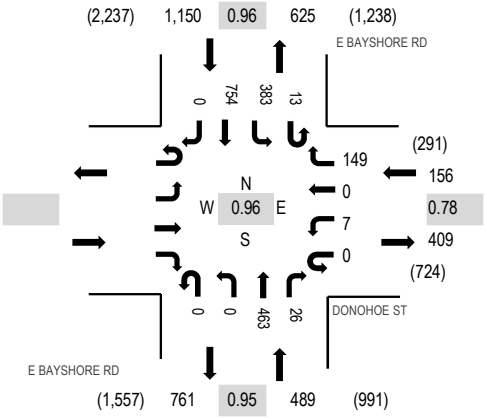
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	8	388	1,000	0	0	0	518	119	0	74	11	20	0	66	0	98	2,302
Mediums	0	5	14	0	0	0	9	1	0	0	0	0	0	0	0	1	30
Total	8	393	1,014	0	0	0	527	120	0	74	11	20	0	66	0	99	2,332

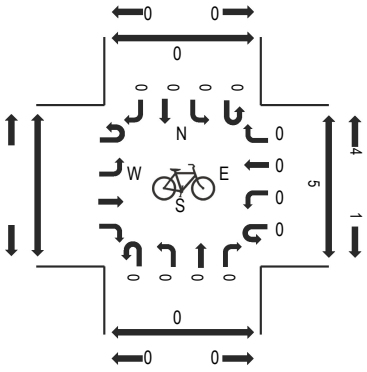
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 7 E BAYSHORE RD & DONOHOE ST PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

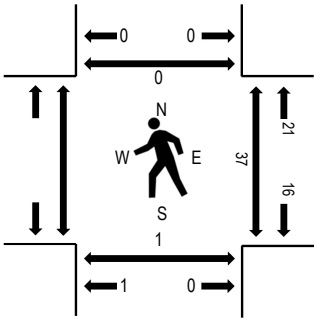
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DONOHOE ST Eastbound				DONOHOE ST Westbound				E BAYSHORE RD Northbound				E BAYSHORE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM					0	2	0	29	0	0	134	8	3	71	198	0	445	1,742		7	0	0
4:15 PM					0	3	0	35	0	0	136	5	0	70	188	0	437	1,765		8	1	0
4:30 PM					0	0	0	35	0	0	120	7	1	73	187	0	423	1,768		17	0	0
4:45 PM					0	0	0	35	0	0	120	7	3	107	165	0	437	1,795		9	0	0
5:00 PM					0	1	0	38	0	0	118	5	3	95	208	0	468	1,777		11	0	0
5:15 PM					0	3	0	29	0	0	104	9	2	105	188	0	440			10	0	0
5:30 PM					0	3	0	47	0	0	121	5	5	76	193	0	450			7	1	0
5:45 PM					1	1	0	29	0	0	89	3	2	77	217	0	419			17	0	0

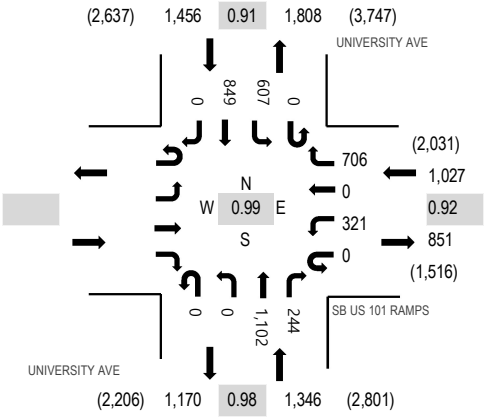
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	7	0	147	0	0	461	23	12	379	753	0	1,782
Mediums					0	0	0	2	0	0	2	3	1	4	1	0	13
Total					0	7	0	149	0	0	463	26	13	383	754	0	1,795

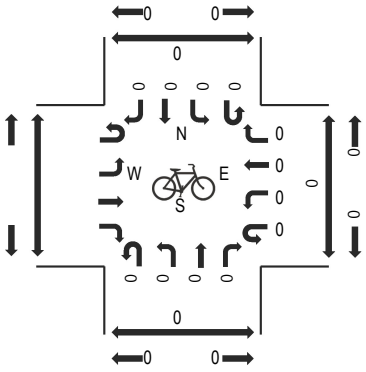
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Location: 8 UNIVERSITY AVE & SB US 101 RAMPS PM
Date: Tuesday, May 21, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

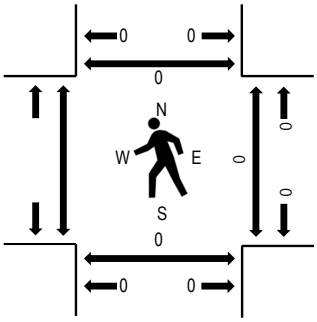
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Eastbound				SB US 101 RAMPS Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM					0	77	0	177	0	0	276	74	0	115	180	0	899	3,640		0	0	0
4:15 PM					0	65	0	168	0	0	319	51	0	97	190	0	890	3,677		0	0	0
4:30 PM					0	75	0	183	0	0	316	50	0	109	179	0	912	3,753		0	0	0
4:45 PM					0	73	0	186	0	0	314	55	0	114	197	0	939	3,800		0	0	0
5:00 PM					0	74	0	206	0	0	268	72	0	131	185	0	936	3,829		0	0	0
5:15 PM					0	70	0	167	0	0	307	63	0	148	211	0	966			0	0	0
5:30 PM					0	79	0	158	0	0	281	59	0	169	213	0	959			0	0	0
5:45 PM					0	98	0	175	0	0	246	50	0	159	240	0	968			0	0	0

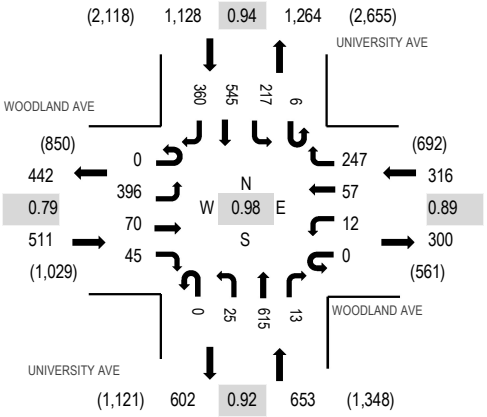
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	1	0	0	1	0	0	2
Bicycles on Road					0	0	0	0	0	0	0	0	0	0	0	0	0
Lights					0	317	0	697	0	0	1,078	242	0	598	838	0	3,770
Mediums					0	4	0	9	0	0	23	2	0	8	11	0	57
Total					0	321	0	706	0	0	1,102	244	0	607	849	0	3,829

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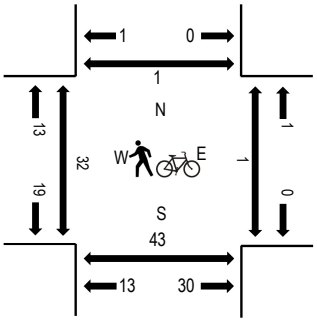
Location: 3 UNIVERSITY AVE & WOODLAND AVE PM
Date: Tuesday, April 16, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				UNIVERSITY AVE Northbound				UNIVERSITY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	118	28	11	0	6	16	81	0	8	161	4	3	44	110	82	672	2,579	11	0	15	0
4:15 PM	0	105	9	10	0	4	10	73	0	5	161	2	2	58	121	91	651	2,533	4	0	7	0
4:30 PM	0	92	18	9	0	10	7	89	0	5	182	1	5	38	113	84	653	2,543	7	0	8	0
4:45 PM	0	94	14	10	0	2	16	62	0	3	162	1	1	44	113	81	603	2,549	2	0	8	0
5:00 PM	0	132	20	14	0	2	10	54	0	10	135	2	0	41	113	93	626	2,608	6	0	10	0
5:15 PM	0	87	11	11	0	4	17	60	0	4	164	2	2	65	136	98	661		4	0	7	0
5:30 PM	0	88	20	10	0	2	13	65	0	4	165	3	2	59	131	97	659		7	0	10	0
5:45 PM	0	89	19	10	0	4	17	68	0	7	151	6	2	52	165	72	662		2	0	5	0

Peak Rolling Hour Flow Rates

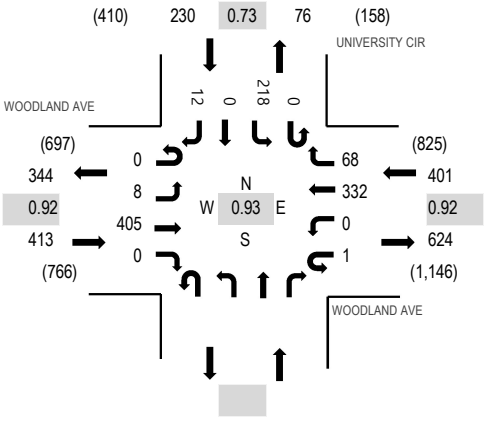
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	389	68	43	0	12	55	243	0	21	608	13	6	216	541	356	2,571
Mediums	0	7	2	2	0	0	2	4	0	4	7	0	0	1	4	4	37
Total	0	396	70	45	0	12	57	247	0	25	615	13	6	217	545	360	2,608

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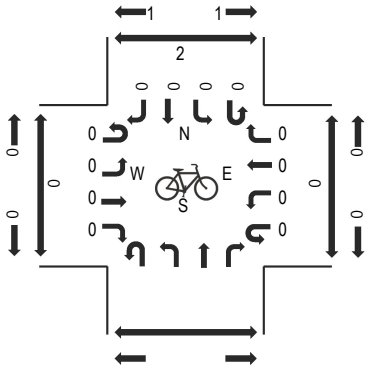
(303) 216-2439
www.alltrafficdata.net

Location: 9 UNIVERSITY CIR & WOODLAND AVE PM
Date: Tuesday, May 21, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

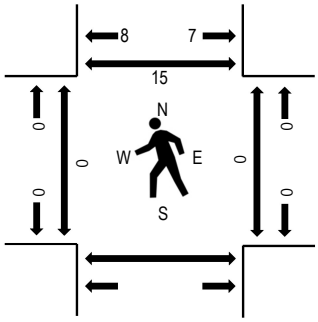
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODLAND AVE Eastbound				WOODLAND AVE Westbound				Northbound				UNIVERSITY CIR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	111	0	1	0	84	13					0	40	0	1	252	1,016	0	0		3
4:15 PM	0	2	115	0	0	0	81	15					0	48	0	3	264	1,044	0	0		2
4:30 PM	0	1	95	0	0	0	69	15					0	48	0	3	231	1,025	0	0		5
4:45 PM	0	4	100	0	0	0	96	22					0	45	0	2	269	1,027	0	0		5
5:00 PM	0	1	95	0	1	0	86	16					0	77	0	4	280	985	0	0		3
5:15 PM	0	1	85	0	0	0	85	18					0	54	0	2	245		0	0		7
5:30 PM	0	1	80	0	0	0	91	19					0	42	0	0	233		0	0		7
5:45 PM	0	5	68	0	1	0	89	23					0	40	0	1	227		1	0		2

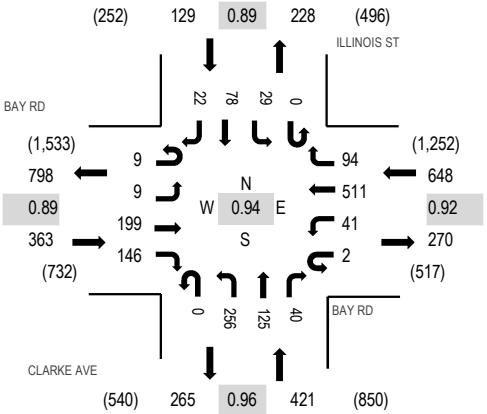
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	1					0	0	0	0	2
Bicycles on Road	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	7	396	0	1	0	326	64					0	216	0	12	1,022
Mediums	0	1	9	0	0	0	5	3					0	2	0	0	20
Total	0	8	405	0	1	0	332	68					0	218	0	12	1,044

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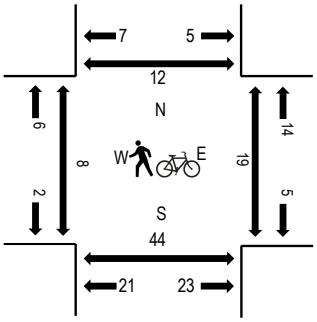
Location: 2 CLARKE AVE & BAY RD PM
Date: Thursday, May 9, 2019
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				CLARKE AVE Northbound				ILLINOIS ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	5	55	37	0	9	135	15	0	55	40	9	0	5	17	3	385	1,531	3	6	2	3
4:15 PM	1	3	46	36	1	11	123	20	0	65	33	9	0	4	22	6	380	1,561	1	8	17	1
4:30 PM	1	2	51	35	0	7	134	25	0	71	30	11	0	10	13	7	397	1,560	3	3	8	5
4:45 PM	2	0	43	36	1	13	116	21	0	64	32	11	0	7	19	4	369	1,534	0	3	4	1
5:00 PM	5	4	59	39	0	10	138	28	0	56	30	9	0	8	24	5	415	1,555	3	2	12	1
5:15 PM	0	6	40	43	0	5	117	29	0	61	43	6	0	11	17	1	379		3	4	7	4
5:30 PM	1	3	42	47	1	13	94	24	0	58	42	8	0	15	18	5	371		2	4	7	1
5:45 PM	3	4	39	44	1	8	130	23	0	66	33	8	1	7	17	6	390		2	9	6	1

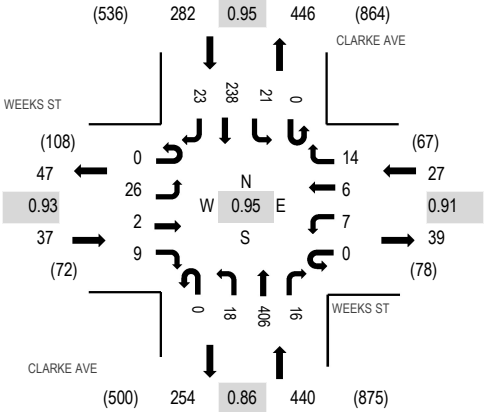
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	9	8	188	143	2	41	500	92	0	253	123	40	0	29	78	22	1,528
Mediums	0	1	10	3	0	0	11	2	0	3	2	0	0	0	0	0	32
Total	9	9	199	146	2	41	511	94	0	256	125	40	0	29	78	22	1,561

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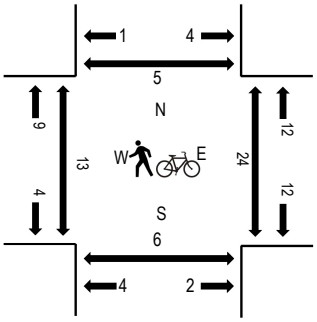
Location: 7 CLARKE AVE & WEEKS ST PM
Date: Thursday, May 9, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WEEKS ST Eastbound				WEEKS ST Westbound				CLARKE AVE Northbound				CLARKE AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	1	6	2	3	0	1	8	2	1	2	86	4	0	3	57	4	180	764	4	3	0	0
4:15 PM	0	5	0	3	0	4	4	3	0	8	112	9	0	0	61	6	215	780	1	9	0	3
4:30 PM	0	3	1	3	0	2	6	2	0	3	99	10	0	3	46	4	182	771	1	5	1	1
4:45 PM	0	3	1	4	0	2	3	3	0	3	94	4	0	2	59	9	187	772	0	3	0	0
5:00 PM	0	8	0	2	0	3	0	4	0	6	96	3	0	5	63	6	196	786	3	6	4	0
5:15 PM	0	6	1	3	0	1	2	0	0	4	120	6	0	5	51	7	206		1	6	0	2
5:30 PM	0	7	0	2	0	1	3	5	0	3	87	2	0	2	69	2	183		6	3	2	2
5:45 PM	0	5	1	2	0	2	1	5	0	5	103	5	0	9	55	8	201		0	5	0	0

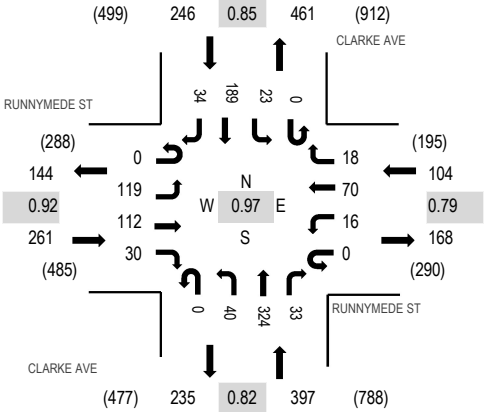
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	25	2	9	0	7	6	14	0	18	401	16	0	21	237	23	779
Mediums	0	1	0	0	0	0	0	0	0	0	5	0	0	0	1	0	7
Total	0	26	2	9	0	7	6	14	0	18	406	16	0	21	238	23	786

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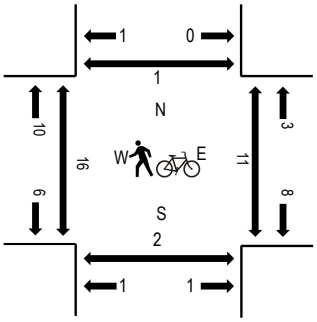
Location: 8 CLARKE AVE & RUNNYMEDE ST PM
Date: Thursday, May 9, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	RUNNYMEDE ST Eastbound				RUNNYMEDE ST Westbound				CLARKE AVE Northbound				CLARKE AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	21	16	13	0	3	14	0	0	4	77	4	0	3	51	8	214	959	1	3	0	0
4:15 PM	0	36	15	7	0	2	21	4	0	10	98	6	0	7	53	9	268	998	0	4	0	3
4:30 PM	0	27	22	9	0	5	17	3	0	9	82	6	0	5	37	13	235	991	4	4	0	0
4:45 PM	0	27	25	6	0	3	18	1	0	10	75	10	0	3	53	11	242	996	3	3	0	0
5:00 PM	0	32	31	8	0	5	15	7	0	12	70	9	0	5	49	10	253	1,008	1	1	1	0
5:15 PM	0	29	33	5	0	1	14	5	0	11	102	11	0	7	41	2	261		2	4	1	1
5:30 PM	0	27	23	5	0	5	16	3	0	11	65	9	0	9	53	14	240		4	1	0	0
5:45 PM	0	31	25	12	0	5	25	3	0	6	87	4	0	2	46	8	254		3	2	0	0

Peak Rolling Hour Flow Rates

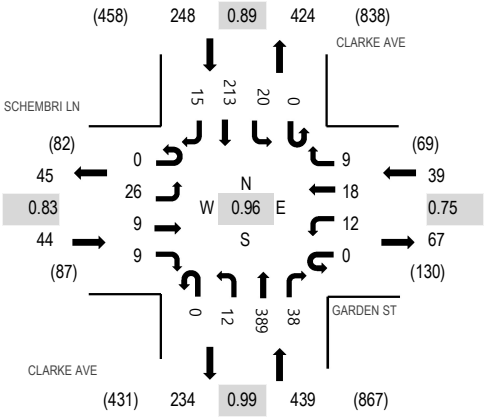
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	119	110	30	0	13	69	17	0	39	320	29	0	23	188	34	991
Mediums	0	0	2	0	0	3	1	1	0	1	4	4	0	0	1	0	17
Total	0	119	112	30	0	16	70	18	0	40	324	33	0	23	189	34	1,008

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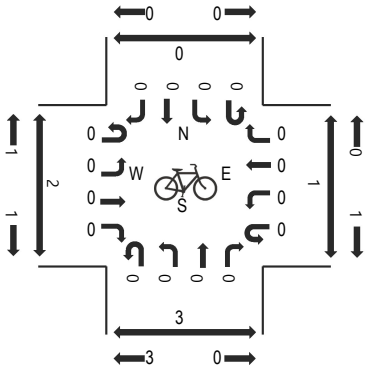
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Location: 13 CLARKE AVE & GARDEN ST PM
Date: Tuesday, May 21, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

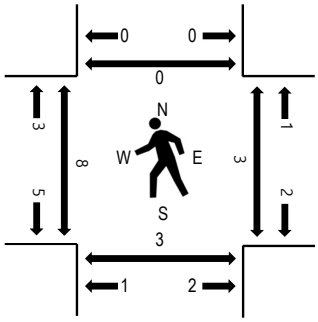
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SCHEMBRI LN Eastbound				GARDEN ST Westbound				CLARKE AVE Northbound				CLARKE AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	3	3	0	0	5	5	4	0	8	97	5	0	6	44	3	183	711	2	0	2	0
4:15 PM	0	5	3	2	0	3	3	2	0	1	111	6	0	9	48	2	195	721	2	4	2	0
4:30 PM	0	5	6	3	0	1	2	1	0	2	99	5	0	4	40	3	171	706	2	1	2	0
4:45 PM	0	5	4	4	0	1	3	0	0	4	82	8	0	4	46	1	162	731	6	3	1	0
5:00 PM	0	11	2	3	0	3	3	1	0	5	97	8	0	1	56	3	193	770	1	1	1	0
5:15 PM	0	4	4	1	0	2	4	3	0	0	98	11	0	4	45	4	180		5	1	0	0
5:30 PM	0	3	1	1	0	2	5	3	0	4	97	10	0	7	57	6	196		1	1	1	0
5:45 PM	0	8	2	4	0	5	6	2	0	3	97	9	0	8	55	2	201		1	0	1	0

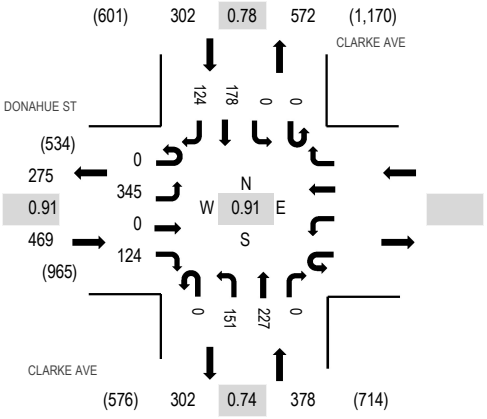
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	25	9	9	0	12	18	9	0	12	377	37	0	20	210	14	752
Mediums	0	1	0	0	0	0	0	0	0	0	12	1	0	0	3	1	18
Total	0	26	9	9	0	12	18	9	0	12	389	38	0	20	213	15	770

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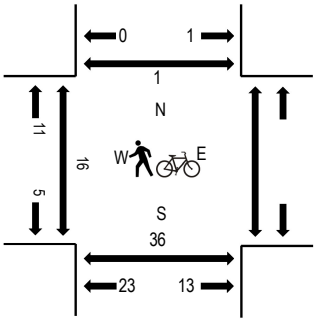
Location: 3 CLARKE AVE & DONAHUE ST PM
Date: Thursday, May 9, 2019
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	DONAHUE ST Eastbound U-Turn	Left	Thru	Right	Westbound U-Turn	Left	Thru	Right	CLARKE AVE Northbound U-Turn	Left	Thru	Right	CLARKE AVE Southbound U-Turn	Left	Thru	Right	Total	Rolling Hour	Pedestrian Crossings West	East	South	North
4:00 PM	0	82	0	41					0	41	42	0	0	0	54	43	303	1,149	1		9	0
4:15 PM	0	91	0	26					0	42	85	0	0	0	47	25	316	1,117	9		9	0
4:30 PM	0	83	0	25					0	37	54	0	0	0	38	30	267	1,090	2		8	0
4:45 PM	0	89	0	32					0	31	46	0	0	0	39	26	263	1,106	3		8	0
5:00 PM	0	78	0	31					0	25	52	0	0	0	45	40	271	1,131	2		12	0
5:15 PM	0	106	0	30					0	26	52	0	0	0	35	40	289		7		15	0
5:30 PM	0	95	0	32					0	40	49	0	0	0	35	32	283		2		13	0
5:45 PM	0	98	0	26					0	24	68	0	0	0	40	32	288		8		15	1

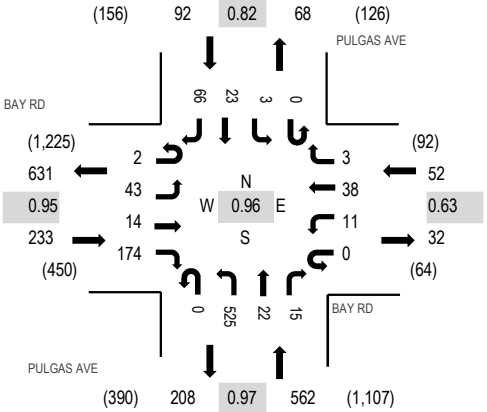
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound U-Turn	Left	Thru	Right	Westbound U-Turn	Left	Thru	Right	Northbound U-Turn	Left	Thru	Right	Southbound U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0					0	0	0	0	0	0	0	1	1
Bicycles on Road	0	0	0	0					0	0	0	0	0	0	0	0	0
Lights	0	338	0	119					0	146	224	0	0	0	172	121	1,120
Mediums	0	7	0	5					0	5	3	0	0	0	6	2	28
Total	0	345	0	124					0	151	227	0	0	0	178	124	1,149

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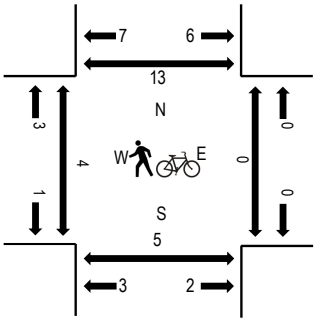
Location: 1 PULGAS AVE & BAY RD PM
Date: Thursday, February 28, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	BAY RD Eastbound				BAY RD Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	2	9	3	38	0	3	15	1	0	116	5	6	0	1	3	13	215	910	5	0	1	0
4:15 PM	0	17	6	41	0	0	7	1	0	127	5	4	0	0	2	14	224	937	5	0	0	0
4:30 PM	1	16	8	38	0	2	10	0	0	128	9	4	0	0	5	23	244	939	3	0	1	0
4:45 PM	0	10	2	45	0	6	17	3	0	117	4	4	0	3	5	11	227	910	1	0	2	0
5:00 PM	1	6	1	51	0	2	6	0	0	139	5	3	0	0	8	20	242	895	0	0	1	6
5:15 PM	0	11	3	40	0	1	5	0	0	141	4	4	0	0	5	12	226		0	0	1	7
5:30 PM	0	5	4	41	0	4	4	2	0	135	2	2	0	1	3	12	215		0	0	0	4
5:45 PM	1	3	3	44	0	1	2	0	0	133	8	2	0	0	2	13	212		3	0	0	1

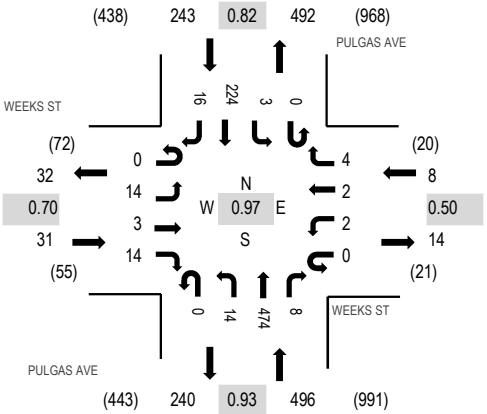
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
Lights	2	40	14	170	0	10	37	2	0	516	21	14	0	3	23	65	917
Mediums	0	1	0	4	0	1	1	1	0	9	0	1	0	0	0	0	18
Total	2	43	14	174	0	11	38	3	0	525	22	15	0	3	23	66	939

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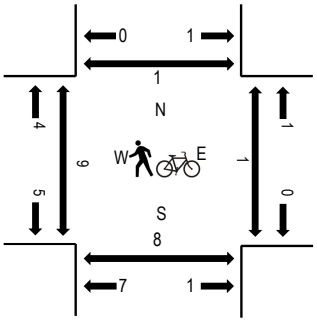
Location: 6 PULGAS AVE & WEEKS ST PM
Date: Thursday, May 9, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WEEKS ST Eastbound				WEEKS ST Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	1	5	0	2	0	0	0	1	0	7	107	1	0	0	40	3	167	746	0	1	0	0
4:15 PM	0	4	0	2	0	4	0	0	0	7	125	1	0	2	44	4	193	772	3	1	0	0
4:30 PM	0	8	1	2	0	0	2	1	0	4	121	1	0	3	51	6	200	778	1	0	1	0
4:45 PM	0	2	0	3	0	0	0	2	0	2	102	1	0	0	67	7	186	759	3	1	7	0
5:00 PM	0	2	1	2	0	0	0	1	0	5	121	2	0	0	56	3	193	758	1	0	0	1
5:15 PM	0	2	1	7	0	2	0	0	0	3	130	4	0	0	50	0	199		3	0	0	0
5:30 PM	0	2	0	2	0	2	0	0	0	11	114	0	0	0	49	1	181		7	0	2	0
5:45 PM	0	1	0	5	0	4	1	0	0	2	117	3	0	0	49	3	185		1	0	1	0

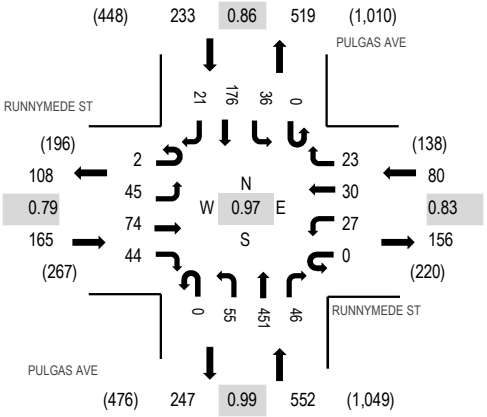
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	14	3	14	0	2	2	4	0	14	461	7	0	3	220	15	759
Mediums	0	0	0	0	0	0	0	0	0	0	13	1	0	0	4	1	19
Total	0	14	3	14	0	2	2	4	0	14	474	8	0	3	224	16	778

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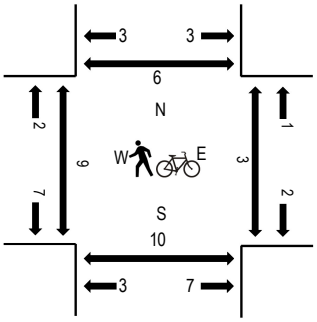
Location: 5 PULGAS AVE & RUNNYMEDE ST PM
Date: Thursday, May 9, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	RUNNYMEDE ST Eastbound				RUNNYMEDE ST Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	7	8	4	0	5	5	6	0	13	102	7	0	3	39	1	200	872	5	0	0	2
4:15 PM	0	10	6	10	0	1	7	6	0	16	118	7	0	2	41	6	230	926	5	0	6	0
4:30 PM	0	10	9	5	0	4	2	4	1	9	114	2	0	6	39	7	212	962	0	2	1	0
4:45 PM	0	14	8	11	0	7	9	2	0	7	98	3	0	3	62	6	230	1,006	7	1	4	0
5:00 PM	1	14	9	13	0	7	7	4	0	14	114	10	0	7	45	9	254	1,030	0	1	0	0
5:15 PM	0	14	30	8	0	6	7	4	0	15	112	12	0	12	45	1	266		2	0	7	1
5:30 PM	0	9	20	13	0	5	11	8	0	10	113	13	0	9	42	3	256		2	1	1	2
5:45 PM	1	8	15	10	0	9	5	7	0	16	112	11	0	8	44	8	254		1	1	2	3

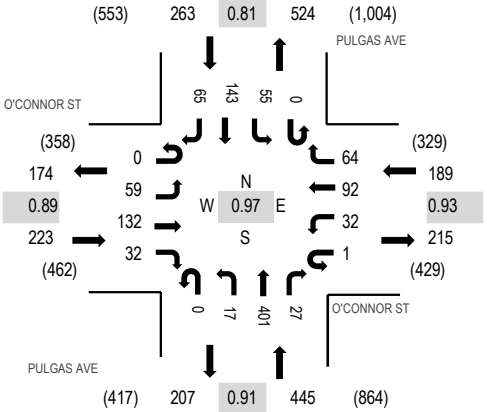
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	2	40	73	44	0	26	30	23	0	52	447	45	0	36	175	16	1,009
Mediums	0	5	1	0	0	1	0	0	0	3	4	1	0	0	1	5	21
Total	2	45	74	44	0	27	30	23	0	55	451	46	0	36	176	21	1,030

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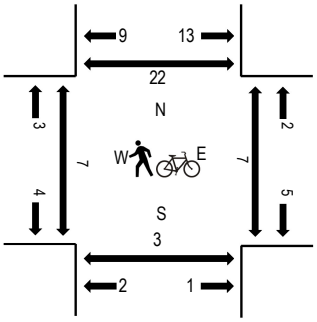
Location: 4 PULGAS AVE & O'CONNOR ST PM
Date: Thursday, May 9, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	O'CONNOR ST Eastbound				O'CONNOR ST Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	17	35	12	0	9	19	12	0	4	93	6	0	11	27	33	278	1,088	17	6	0	9
4:15 PM	0	21	35	11	0	6	14	13	0	4	93	11	0	18	42	30	298	1,099	11	1	1	4
4:30 PM	0	18	29	10	0	2	19	11	0	5	100	7	0	5	31	12	249	1,086	7	6	0	10
4:45 PM	0	9	29	13	0	6	18	11	0	6	82	8	0	20	41	20	263	1,110	0	1	0	4
5:00 PM	0	15	31	14	0	10	15	20	0	8	102	7	0	19	33	15	289	1,120	3	1	0	6
5:15 PM	0	9	35	8	0	7	22	16	0	5	113	6	0	10	36	18	285		0	0	0	2
5:30 PM	0	19	33	5	0	9	30	12	0	1	87	5	0	15	39	18	273		0	4	1	6
5:45 PM	0	16	33	5	1	6	25	16	0	3	99	9	0	11	35	14	273		3	0	1	4

Peak Rolling Hour Flow Rates

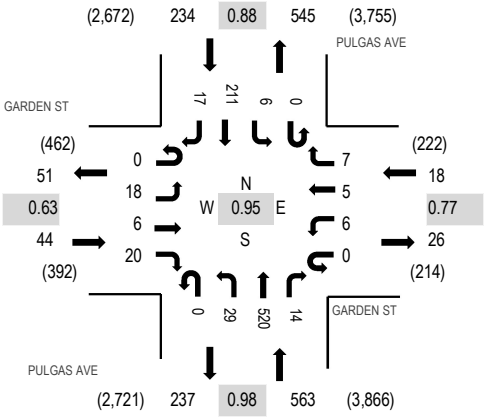
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	58	132	32	1	32	92	64	0	17	398	27	0	55	142	62	1,112
Mediums	0	1	0	0	0	0	0	0	0	0	3	0	0	0	1	3	8
Total	0	59	132	32	1	32	92	64	0	17	401	27	0	55	143	65	1,120

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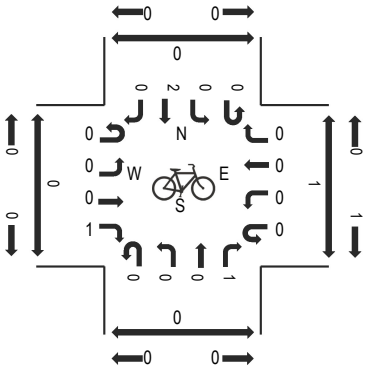
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Location: 9 PULGAS AVE & GARDEN ST AM
Date: Tuesday, January 22, 2019
Peak Hour: 05:15 PM - 06:15 PM
Peak 15-Minutes: 06:00 PM - 06:15 PM

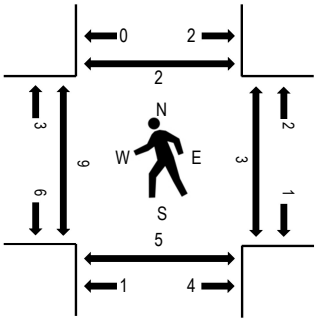
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	GARDEN ST Eastbound				GARDEN ST Westbound				PULGAS AVE Northbound				PULGAS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
6:00 AM	0	0	0	0	0	1	1	1	0	0	9	0	0	0	13	1	26	156	0	2	0	0
6:15 AM	0	1	0	0	0	4	1	0	0	1	15	1	0	0	13	1	37	219	0	0	0	0
6:30 AM	0	1	0	0	0	0	2	0	0	2	17	0	0	0	12	2	36	304	0	1	0	0
6:45 AM	0	0	0	3	0	1	0	0	0	1	21	0	0	1	30	0	57	437	0	1	1	0
7:00 AM	0	0	1	2	0	0	2	2	0	3	29	1	0	1	47	1	89	616	0	1	0	0
7:15 AM	0	2	2	8	0	2	5	6	0	6	45	3	0	1	38	4	122	700	0	3	1	0
7:30 AM	0	5	0	4	0	3	6	1	0	11	71	1	0	1	54	12	169	775	4	1	5	0
7:45 AM	0	17	1	10	0	4	7	2	0	10	91	6	0	3	71	14	236	822	2	0	6	4
8:00 AM	0	3	1	2	0	0	1	1	0	4	56	2	0	1	99	3	173	724	0	1	2	0
8:15 AM	0	1	1	3	0	1	0	0	0	4	72	1	0	2	111	1	197	633	1	0	0	0
8:30 AM	0	1	0	6	0	4	2	1	0	4	75	2	0	0	119	2	216	526	5	1	0	0
8:45 AM	0	1	0	6	0	4	1	0	0	1	57	2	0	0	66	0	138	391	1	0	0	0
9:00 AM	0	2	0	4	0	0	2	1	0	1	27	0	0	1	42	2	82	342	3	0	0	0
9:15 AM	0	0	0	1	0	2	0	2	0	4	23	2	0	1	53	2	90	334	0	0	0	1
9:30 AM	0	1	0	1	0	1	1	1	1	2	26	1	0	1	44	1	81	317	1	0	0	0
9:45 AM	0	2	0	2	0	1	0	0	0	4	33	0	0	1	44	2	89	312	0	0	1	0
10:00 AM	0	3	0	0	0	0	2	1	0	1	24	1	0	2	38	2	74	280	1	0	1	1
10:15 AM	0	2	0	1	0	1	2	0	0	0	31	1	0	0	32	3	73	262	2	0	0	0
10:30 AM	0	0	0	0	0	0	0	2	0	2	28	0	0	1	42	1	76	280	4	2	1	0
10:45 AM	0	0	1	0	0	0	0	1	0	1	26	1	0	1	24	2	57	286	1	1	1	0
11:00 AM	0	2	0	2	0	0	2	0	0	1	23	0	0	0	25	1	56	318	3	0	0	0
11:15 AM	0	5	1	1	0	0	0	1	0	0	40	3	0	1	36	3	91	349	0	3	2	0
11:30 AM	0	2	0	5	0	1	1	0	0	0	37	1	0	0	33	2	82	331	2	0	0	0
11:45 AM	0	1	0	2	0	2	2	2	0	5	35	2	0	4	32	2	89	334	0	2	0	0
12:00 PM	0	3	0	4	0	2	0	0	0	2	35	3	0	2	33	3	87	313	4	0	1	0
12:15 PM	0	1	1	2	0	0	1	2	0	0	38	1	0	0	25	2	73	299	0	0	0	0
12:30 PM	0	2	1	2	0	0	0	0	0	1	39	1	1	0	35	3	85	316	0	0	1	0
12:45 PM	0	0	0	4	0	2	0	2	0	1	30	0	0	2	27	0	68	306	2	1	1	0
1:00 PM	0	0	2	5	0	2	1	0	0	4	30	1	0	1	27	0	73	320	1	1	1	0
1:15 PM	0	2	2	2	0	0	4	2	0	2	35	0	0	3	37	1	90	335	2	0	0	0
1:30 PM	1	1	2	3	0	1	1	0	0	2	33	0	0	1	25	5	75	338	2	0	0	0
1:45 PM	0	0	1	3	0	1	1	1	0	1	39	1	0	0	34	0	82	408	0	1	0	0
2:00 PM	0	2	0	2	0	2	1	1	0	5	45	0	0	2	26	2	88	504	2	1	0	0
2:15 PM	0	0	0	4	0	0	1	1	0	1	46	1	0	0	37	2	93	580	2	0	0	0

2:30 PM	1	2	0	3	0	3	0	0	1	1	95	1	0	1	34	3	145	711	0	0	0	0
2:45 PM	0	3	3	4	0	0	2	0	0	3	106	5	0	2	46	4	178	772	2	1	0	0
3:00 PM	0	2	6	1	0	0	2	1	0	1	91	7	0	2	49	2	164	777	3	1	1	2
3:15 PM	0	2	3	9	0	7	13	3	0	14	92	2	0	1	63	15	224	797	7	2	6	13
3:30 PM	1	7	0	15	0	2	1	0	0	11	82	4	0	2	69	12	206	772	1	4	0	1
3:45 PM	0	8	2	1	0	1	2	1	0	4	108	2	0	3	50	1	183	774	3	3	4	0
4:00 PM	0	6	0	2	0	0	0	1	0	7	91	5	0	2	64	6	184	801	1	1	0	0
4:15 PM	0	8	1	7	0	0	0	2	0	6	136	3	0	2	32	2	199	814	2	5	2	0
4:30 PM	0	4	1	8	0	0	0	1	1	5	132	3	0	1	52	0	208	823	3	1	1	0
4:45 PM	0	6	2	4	0	2	1	2	1	2	125	0	0	1	62	2	210	830	1	2	0	0
5:00 PM	0	3	1	7	0	3	1	1	0	2	118	3	0	3	54	1	197	830	7	1	0	0
5:15 PM	0	3	3	6	0	2	3	2	0	8	132	2	0	0	43	4	208	859	2	0	0	2
5:30 PM	0	2	0	5	0	1	0	1	0	5	137	2	0	0	59	3	215	856	0	0	0	0
5:45 PM	0	3	1	4	0	0	1	4	0	8	131	4	0	0	48	6	210	805	3	1	1	0
6:00 PM	0	10	2	5	0	3	1	0	0	8	120	6	0	6	61	4	226	757	4	2	4	0
6:15 PM	0	2	0	4	0	1	4	2	0	6	130	2	0	3	47	4	205	679	0	0	0	0
6:30 PM	0	1	2	5	0	2	0	2	0	5	103	2	0	0	40	2	164	581	0	0	0	0
6:45 PM	0	3	2	2	0	1	2	0	0	7	105	4	0	1	33	2	162	512	0	0	0	0
7:00 PM	0	1	2	6	0	0	2	0	0	6	95	2	0	1	31	2	148	414	0	0	0	0
7:15 PM	0	1	0	5	0	1	0	1	0	6	62	0	0	0	30	1	107		0	0	0	1
7:30 PM	0	1	0	1	0	3	2	0	0	6	48	0	0	1	32	1	95		0	0	0	0
7:45 PM	0	0	2	0	0	0	1	2	0	3	33	0	0	0	22	1	64		0	0	0	1

Peak Rolling Hour Flow Rates

	Eastbound				Westbound				Northbound				Southbound				
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Bicycles on Road	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	0	4
Lights	0	18	6	19	0	6	5	7	0	29	515	13	0	6	207	17	848
Mediums	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	6
Total	0	18	6	20	0	6	5	7	0	29	520	14	0	6	211	17	859

Appendix B

Volume Summary Tables

Intersection Number:	1
Traffix Node Number:	4
Intersection Name:	Ralmar Avenue & Newbridge Street/Bay Road
Peak Hour:	AM
Count Date:	01/01/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.000
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	27	27	138	152	248	37	39	62	6	7	229	15	987
check	27	27	138	152	248	37	39	62	6	7	229	15	987
RVSP Proj Trips without Loop Rd	0	0	0	0	113	0	0	0	0	0	390	0	503
Approved+Pending Proj Trips in EPA out RVSP	0	0	3	3	10	8	9	0	0	0	13	0	46
The Primary School Proj Trips without Loop Road	0	0	0	0	39	0	0	0	0	0	45	0	84
Sobrato Office Phase II without Loop Road	0	0	2	0	0	0	0	0	0	3	3	0	8
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	4	0	0	0	0	0	5	0	9
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**0**	**5**	**3**	**166**	**8**	**9**	**0**	**0**	**3**	**456**	**0**	**650**
Cumul + Project Conditions without Loop Road	27	27	143	155	414	45	48	62	6	10	685	15	1637
check	27	27	143	155	414	45	48	62	6	10	685	15	
KIPP Charter HS Proj Trips No Loop	0	0	3	3	10	8	9	0	0	0	13	0	46
Existing + Proj No Loop Road	27	27	141	155	258	45	48	62	6	7	242	15	1033
check	27	27	141	155	258	45	48	62	6	7	242	15	
Cumul No Project Conditions without Loop Road	27	27	140	152	404	37	39	62	6	10	672	15	1591
check	27	27	140	152	404	37	39	62	6	10	672	15	

Intersection Number:	2
Traffix Node Number:	11
Intersection Name:	University Avenue & Bay Road
Peak Hour:	AM
Count Date:	04/17/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	113	862	154	130	221	76	87	677	76	58	219	60	2733
check	113	862	154	130	221	76	87	677	76	58	219	60	2733
RVSP Proj Trips without Loop Rd	13	36	364	83	119	110	260	26	4	2	451	10	1478
Approved+Pending Proj Trips in EPA out RVSP	0	11	2	2	25	0	0	13	0	0	30	0	83
The Primary School Proj Trips without Loop Road	0	0	18	14	36	0	0	2	4	0	45	0	119
Sobrato Office Phase II without Loop Road	0	46	0	0	0	2	0	6	0	0	0	0	54
University Circle Phase II	0	24	0	0	0	0	0	4	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	5	3	5	25	28	0	0	0	7	0	73
Regional Growth (2019 to 2040)	28	217	39	33	56	19	22	171	19	15	55	15	689
Total Cumulative Growth	**41**	**334**	**428**	**135**	**241**	**156**	**310**	**222**	**27**	**17**	**588**	**25**	**2524**
Cumul + Project Conditions without Loop Road	154	1196	582	265	462	232	397	899	103	75	807	85	5257
check	154	1196	582	265	462	232	397	899	103	75	807	85	
KIPP Charter HS Proj Trips No Loop	0	6	2	2	25	0	0	5	0	0	30	0	70
Existing + Proj No Loop Road	113	868	156	132	246	76	87	682	76	58	249	60	2803
check	113	868	156	132	246	76	87	682	76	58	249	60	
Cumul No Project Conditions without Loop Road	154	1190	580	263	437	232	397	894	103	75	777	85	5187
check	154	1190	580	263	437	232	397	894	103	75	777	85	

Intersection Number:	3
Traffix Node Number:	13
Intersection Name:	University Avenue & Bell Street
Peak Hour:	AM
Count Date:	01/01/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	16	888	16	12	115	90	43	678	29	35	76	12	2010
check	16	888	16	12	115	90	43	678	29	35	76	12	2010
RVSP Proj Trips without Loop Rd	3	175	0	0	2	0	0	284	0	0	5	9	478
Approved+Pending Proj Trips in EPA out RVSP	0	5	0	0	8	18	16	8	0	0	9	0	64
The Primary School Proj Trips without Loop Road	0	18	0	0	7	0	0	20	0	0	8	0	53
Sobrato Office Phase II without Loop Road	0	51	0	0	0	1	0	3	0	2	0	3	60
University Circle Phase II	0	24	0	0	0	0	0	4	0	0	0	0	28
2398 University Avenue Hotel Only	1	19	0	1	0	0	0	26	0	0	0	1	48
Regional Growth (2019 to 2040)	4	224	4	3	29	23	11	171	7	9	19	3	507
Total Cumulative Growth	**8**	**516**	**4**	**4**	**46**	**42**	**27**	**516**	**7**	**11**	**41**	**16**	**1238**
Cumul + Project Conditions without Loop Road	24	1404	20	16	161	132	70	1194	36	46	117	28	3248
check	24	1404	20	16	161	132	70	1194	36	46	117	28	
KIPP Charter HS Proj Trips No Loop	0	0	0	0	8	18	16	0	0	0	9	0	51
Existing + Proj No Loop Road	16	888	16	12	123	108	59	678	29	35	85	12	2061
check	16	888	16	12	123	108	59	678	29	35	85	12	
Cumul No Project Conditions without Loop Road	24	1404	20	16	153	114	54	1194	36	46	108	28	3197
check	24	1404	20	16	153	114	54	1194	36	46	108	28	

Intersection Number:	4
Traffix Node Number:	6
Intersection Name:	US 101 NB On Ramp & Donohoe Street (unsignalized)
Peak Hour:	AM
Count Date:	05/21/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	2	0	1	146	409	0	0	0	442	525	0	1525
check	0	2	0	1	146	409	0	0	0	442	525	0	1525
RVSP Proj Trips without Loop Rd	0	0	0	0	0	71	0	0	0	0	0	0	71
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	2	12	0	0	0	0	2	0	16
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	6	7	8	162	1	0	0	0	0	0	0	17	201
University Circle Phase II	0	0	0	0	2	0	0	0	0	0	12	0	14
2398 University Avenue Hotel Only	0	0	0	0	0	7	0	0	0	0	0	0	7
Regional Growth (2019 to 2040)	0	1	0	0	37	103	0	0	0	111	132	0	384
Total Cumulative Growth	**6**	**8**	**8**	**162**	**42**	**193**	**0**	**0**	**0**	**111**	**146**	**17**	**693**
Cumul + Project Conditions without Loop Road	6	10	8	163	188	602	0	0	0	553	671	17	2218
check	6	10	8	163	188	602	0	0	0	553	671	17	
KIPP Charter HS Proj Trips No Loop	0	0	0	0	0	12	0	0	0	0	0	0	12
Existing + Proj No Loop Road	0	2	0	1	146	421	0	0	0	442	525	0	1537
check	0	2	0	1	146	421	0	0	0	442	525	0	
Cumul No Project Conditions without Loop Road	6	10	8	163	188	590	0	0	0	553	671	17	2206
check	6	10	8	163	188	590	0	0	0	553	671	17	

Intersection Number:	5
Traffix Node Number:	14
Intersection Name:	University Avenue & Donohoe Street*
Peak Hour:	AM
Count Date:	04/17/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	48	616	14	448	394	479	405	340	86	526	57	14	3427
check	48	616	14	448	394	479	405	340	86	526	57	14	3427
RVSP Proj Trips without Loop Rd	45	123	7	43	26	11	102	242	0	0	0	0	599
Approved+Pending Proj Trips in EPA out RVSP	4	17	2	0	8	34	47	24	2	1	1	0	140
The Primary School Proj Trips without Loop Road	0	18	0	0	0	4	4	20	0	0	0	0	46
Sobrato Office Phase II without Loop Road	1	10	0	0	93	0	0	0	70	3	1	3	181
University Circle Phase II	0	24	0	0	0	11	2	4	2	12	0	0	55
2398 University Avenue Hotel Only	7	12	0	13	0	0	0	14	0	0	0	0	46
Regional Growth (2019 to 2040)	12	155	4	113	99	121	102	86	22	133	14	4	864
Total Cumulative Growth	**69**	**359**	**13**	**169**	**226**	**181**	**257**	**390**	**96**	**149**	**16**	**7**	**1931**
Cumul + Project Conditions without Loop Road	117	975	27	617	620	660	662	730	182	675	73	21	5358
check	117	975	27	617	620	660	662	730	182	675	73	21	
KIPP Charter HS Proj Trips No Loop	4	14	0	0	8	33	41	16	0	0	0	0	116
Existing + Proj No Loop Road	52	630	14	448	402	512	446	356	86	526	57	14	3543
check	52	630	14	448	402	512	446	356	86	526	57	14	
Cumul No Project Conditions without Loop Road	113	961	27	617	612	627	621	714	182	675	73	21	5242
check	113	961	27	617	612	627	621	714	182	675	73	21	

Intersection Number:	6
Traffix Node Number:	18
Intersection Name:	US 101 NB Off Ramp/University Plaza driveway & Donohoe Street*
Peak Hour:	AM
Count Date:	05/21/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	19	0	2	22	829	0	214	63	446	0	388	0	1983
check	19	0	2	22	829	0	214	63	446	0	388	0	1983
RVSP Proj Trips without Loop Rd	0	0	0	0	41	0	163	0	39	0	109	0	352
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	42	0	12	0	0	0	50	0	104
The Primary School Proj Trips without Loop Road	0	0	0	0	4	0	0	0	0	0	4	0	8
Sobrato Office Phase II without Loop Road	0	0	0	0	10	0	0	0	83	0	1	0	94
University Circle Phase II	0	0	0	0	11	0	0	0	0	0	2	0	13
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	13	0	0	0	13
Regional Growth (2019 to 2040)	5	0	1	6	209	0	54	16	112	0	98	0	500
Total Cumulative Growth	**5**	**0**	**1**	**6**	**317**	**0**	**229**	**16**	**247**	**0**	**264**	**0**	**1084**
Cumul + Project Conditions without Loop Road	24	0	3	28	1146	0	443	79	693	0	652	0	3067
check	24	0	3	28	1146	0	443	79	693	0	652	0	
KIPP Charter HS Proj Trips No Loop	0	0	0	0	41	0	8	0	0	0	41	0	90
Existing + Proj No Loop Road	19	0	2	22	870	0	222	63	446	0	429	0	2073
check	19	0	2	22	870	0	222	63	446	0	429	0	
Cumul No Project Conditions without Loop Road	24	0	3	28	1105	0	435	79	693	0	611	0	2977
check	24	0	3	28	1105	0	435	79	693	0	611	0	

Intersection Number: 7
Traffix Node Number: 19
Intersection Name: Cooley Avenue & Donohoe Street*
Peak Hour: AM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	297	0	88	35	491	0	0	0	5	0	521	101	1538
check	297	0	88	35	491	0	0	0	5	0	521	101	1538
RVSP Proj Trips without Loop Rd	13	0	0	3	28	0	0	0	0	0	107	165	316
Approved+Pending Proj Trips in EPA out RVSP	15	0	0	0	27	0	0	0	0	0	46	15	103
The Primary School Proj Trips without Loop Road	0	0	0	0	4	0	0	0	0	0	4	0	8
Sobrato Office Phase II without Loop Road	2	0	0	0	8	0	0	0	0	0	1	0	11
University Circle Phase II	4	0	0	0	7	0	0	0	0	0	1	1	13
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	75	0	22	9	124	0	0	0	1	0	131	25	388
Total Cumulative Growth	**109**	**0**	**22**	**12**	**198**	**0**	**0**	**0**	**1**	**0**	**290**	**206**	**839**
Cumul + Project Conditions without Loop Road	406	0	110	47	689	0	0	0	6	0	811	307	2377
check	406	0	110	47	689	0	0	0	6	0	811	307	
KIPP Charter HS Proj Trips No Loop	15	0	0	0	26	0	0	0	0	0	33	15	89
Existing + Proj No Loop Road	312	0	88	35	517	0	0	0	5	0	554	116	1627
check	312	0	88	35	517	0	0	0	5	0	554	116	
Cumul No Project Conditions without Loop Road	391	0	110	47	663	0	0	0	6	0	778	292	2288
check	391	0	110	47	663	0	0	0	6	0	778	292	

Intersection Number: 8
Traffix Node Number: 20
Intersection Name: E Bayshore Road & Donohoe Street*
Peak Hour: AM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	375	236	252	0	9	9	307	0	0	0	0	1188
check	0	375	236	252	0	9	9	307	0	0	0	0	1188
RVSP Proj Trips without Loop Rd	0	2	104	27	0	0	0	3	0	0	0	0	136
Approved+Pending Proj Trips in EPA out RVSP	0	11	35	27	0	1	0	0	0	0	0	0	74
The Primary School Proj Trips without Loop Road	0	0	4	4	0	0	0	0	0	0	0	0	8
Sobrato Office Phase II without Loop Road	0	0	1	4	0	0	0	4	0	0	0	0	9
University Circle Phase II	0	0	1	4	0	0	0	3	0	0	0	0	8
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	95	59	64	0	2	2	77	0	0	0	0	299
Total Cumulative Growth	**0**	**108**	**204**	**130**	**0**	**3**	**2**	**87**	**0**	**0**	**0**	**0**	**534**
Cumul + Project Conditions without Loop Road	0	483	440	382	0	12	11	394	0	0	0	0	1722
check	0	483	440	382	0	12	11	394	0	0	0	0	
KIPP Charter HS Proj Trips No Loop	0	0	33	26	0	0	0	0	0	0	0	0	59
Existing + Proj No Loop Road	0	375	269	278	0	9	9	307	0	0	0	0	1247
check	0	375	269	278	0	9	9	307	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	483	407	356	0	12	11	394	0	0	0	0	1663
check	0	483	407	356	0	12	11	394	0	0	0	0	

Intersection Number: 9
Traffix Node Number: 15
Intersection Name: University Avenue & US 101 SB Off-Ramp*
Peak Hour: AM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	1077	744	299	0	273	287	842	0	0	0	0	3522
check	0	1077	744	299	0	273	287	842	0	0	0	0	3522
RVSP Proj Trips without Loop Rd	0	55	79	224	0	0	0	119	0	0	0	0	477
Approved+Pending Proj Trips in EPA out RVSP	0	52	7	15	0	10	21	86	0	0	0	0	191
The Primary School Proj Trips without Loop Road	0	21	0	0	0	0	0	25	0	0	0	0	46
Sobrato Office Phase II without Loop Road	0	2	11	51	0	0	0	19	0	0	0	0	83
University Circle Phase II	0	90	0	0	0	27	7	12	0	0	0	0	136
2398 University Avenue Hotel Only	0	3	19	0	0	0	0	4	0	0	0	0	26
Regional Growth (2019 to 2040)	0	271	187	75	0	69	72	212	0	0	0	0	888
Total Cumulative Growth	**0**	**494**	**303**	**365**	**0**	**106**	**100**	**477**	**0**	**0**	**0**	**0**	**1847**
Cumul + Project Conditions without Loop Road	0	1571	1047	664	0	379	387	1319	0	0	0	0	5369
check	0	1571	1047	664	0	379	387	1319	0	0	0	0	
KIPP Charter HS Proj Trips No Loop	0	40	7	12	0	0	0	45	0	0	0	0	104
Existing + Proj No Loop Road	0	1117	751	311	0	273	287	887	0	0	0	0	3626
check	0	1117	751	311	0	273	287	887	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	1531	1040	652	0	379	387	1274	0	0	0	0	5265
check	0	1531	1040	652	0	379	387	1274	0	0	0	0	

Intersection Number: 10
Traffix Node Number: 16
Intersection Name: University Avenue & Woodland Avenue*
Peak Hour: AM
Date of Analysis: 10/02/20
Count Date: 04/17/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	442	925	144	197	98	10	7	612	50	52	90	320	2947
check	442	925	144	197	98	10	7	612	50	52	90	320	2947
RVSP Proj Trips without Loop Rd	0	55	0	0	0	0	0	119	0	0	0	0	174
Approved+Pending Proj Trips in EPA out RVSP	45	3	14	15	0	0	0	4	5	15	0	88	189
The Primary School Proj Trips without Loop Road	0	21	0	0	0	0	0	25	0	0	0	0	46
Sobrato Office Phase II without Loop Road	0	2	0	0	0	0	0	19	0	0	0	0	21
University Circle Phase II	117	0	0	0	4	0	0	0	7	1	1	19	149
2398 University Avenue Hotel Only	0	3	0	0	0	0	0	4	0	0	0	0	7
Regional Growth (2019 to 2040)	111	233	36	50	25	3	2	154	13	13	23	81	743
Total Cumulative Growth	**273**	**317**	**50**	**65**	**29**	**3**	**2**	**325**	**25**	**29**	**24**	**188**	**1329**
Cumul + Project Conditions without Loop Road	715	1242	194	262	127	13	9	937	75	81	114	508	4276
check	715	1242	194	262	127	13	9	937	75	81	114	508	
KIPP Charter HS Proj Trips No Loop	23	3	14	15	0	0	0	3	0	0	0	26	84
Existing + Proj No Loop Road	465	928	158	212	98	10	7	615	50	52	90	346	3031
check	465	928	158	212	98	10	7	615	50	52	90	346	
Cumul No Project Conditions without Loop Road	692	1239	180	247	127	13	9	934	75	81	114	482	4192
check	692	1239	180	247	127	13	9	934	75	81	114	482	

Intersection Number: 11
Traffix Node Number: 17
Intersection Name: University Circle & Woodland Avenue*
Peak Hour: AM
Count Date: 05/21/19
Scenario: Without Loop Road
(SJ) Growth Factor: 0.000
(SJ) Number of Months: 0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.000
Number of Years to Buildout: 21

Scenario:	Movements North Approach RT	TH	LT	East Approach RT	TH	LT	South Approach RT	TH	LT	West Approach RT	TH	LT	*Total*
Existing Conditions	6	0	91	231	344	0	0	0	0	0	463	20	1155
check	6	0	91	231	344	0	0	0	0	0	463	20	1155
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	50	0	0	0	0	0	103	0	153
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	1	0	21	128	0	0	0	0	0	0	0	4	154
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**1**	**0**	**21**	**128**	**50**	**0**	**0**	**0**	**0**	**0**	**103**	**4**	**307**
Cumul + Project Conditions without Loop Road	7	0	112	359	394	0	0	0	0	0	566	24	1462
check	7	0	112	359	394	0	0	0	0	0	566	24	
KIPP Charter HS Proj Trips No Loop	0	0	0	0	23	0	0	0	0	0	26	0	49
Existing + Proj No Loop Road	6	0	91	231	367	0	0	0	0	0	489	20	1204
check	6	0	91	231	367	0	0	0	0	0	489	20	
Cumul No Project Conditions without Loop Road	7	0	112	359	371	0	0	0	0	0	540	24	1413
check	7	0	112	359	371	0	0	0	0	0	540	24	

Intersection Number: 12
Traffix Node Number: 21
Intersection Name: Clarke Avenue & Bay Road (unsignalized)
Peak Hour: AM
Count Date: 05/09/19
Scenario: Without Loop Road
(SJ) Growth Factor: 0.000
(SJ) Number of Months: 0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.000
Number of Years to Buildout: 21

Scenario:	Movements North Approach RT	TH	LT	East Approach RT	TH	LT	South Approach RT	TH	LT	West Approach RT	TH	LT	*Total*
Existing Conditions	18	212	97	30	279	24	38	43	164	223	293	6	1427
check	18	212	97	30	279	24	38	43	164	223	293	6	1427
RVSP Proj Trips without Loop Rd	5	10	310	57	234	22	176	4	21	38	946	2	1825
Approved+Pending Proj Trips in EPA out RVSP	0	15	0	3	8	0	0	10	19	30	2	0	87
The Primary School Proj Trips without Loop Road	0	18	0	0	6	0	0	16	44	50	14	0	148
Sobrato Office Phase II without Loop Road	2	0	0	0	0	0	0	0	0	0	0	0	2
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	5	0	0	0	0	0	0	0	1	1	0	3	10
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**12**	**43**	**310**	**60**	**248**	**22**	**176**	**30**	**85**	**119**	**962**	**5**	**2072**
Cumul + Project Conditions without Loop Road	30	255	407	90	527	46	214	73	249	342	1255	11	3499
check	30	255	407	90	527	46	214	73	249	342	1255	11	
KIPP Charter HS Proj Trips No Loop	0	15	0	3	8	0	0	10	19	30	2	0	87
Existing + Proj No Loop Road	18	227	97	33	287	24	38	53	183	253	295	6	1514
check	18	227	97	33	287	24	38	53	183	253	295	6	
Cumul No Project Conditions without Loop Road	30	240	407	87	519	46	214	63	230	312	1253	11	3412
check	30	240	407	87	519	46	214	63	230	312	1253	11	

Intersection Number:	13
Traffix Node Number:	22
Intersection Name:	Clarke Avenue & Weeks Street (unsignalized)
Peak Hour:	AM
Count Date:	05/09/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.000
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	49	400	12	22	18	11	16	222	11	7	6	9	783
check	49	400	12	22	18	11	16	222	11	7	6	9	783
RVSP Proj Trips without Loop Rd	4	36	24	10	10	5	9	176	0	0	21	19	314
Approved+Pending Proj Trips in EPA out RVSP	0	45	0	0	0	0	0	29	0	0	0	0	74
The Primary School Proj Trips without Loop Road	0	0	68	60	45	32	37	0	0	0	45	0	287
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	1	0	0	0	0	0	1	0	0	0	0	2
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**4**	**82**	**92**	**70**	**55**	**37**	**46**	**206**	**0**	**0**	**66**	**19**	**677**
Cumul + Project Conditions without Loop Road	53	482	104	92	73	48	62	428	11	7	72	28	1460
check	53	482	104	92	73	48	62	428	11	7	72	28	
KIPP Charter HS Proj Trips No Loop	0	45	0	0	0	0	0	29	0	0	0	0	74
Existing + Proj No Loop Road	49	445	12	22	18	11	16	251	11	7	6	9	857
check	49	445	12	22	18	11	16	251	11	7	6	9	
Cumul No Project Conditions without Loop Road	53	437	104	92	73	48	62	399	11	7	72	28	1386
check	53	437	104	92	73	48	62	399	11	7	72	28	

Intersection Number:	14
Traffix Node Number:	23
Intersection Name:	Clarke Avenue & Runnymede Street (unsignalized)
Peak Hour:	AM
Count Date:	05/09/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.000
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	51	373	13	24	142	28	25	189	56	74	158	26	1159
check	51	373	13	24	142	28	25	189	56	74	158	26	1159
RVSP Proj Trips without Loop Rd	9	31	0	0	31	5	9	129	0	0	135	56	405
Approved+Pending Proj Trips in EPA out RVSP	0	45	1	3	2	0	0	29	6	15	0	0	101
The Primary School Proj Trips without Loop Road	4	29	0	0	0	0	0	33	0	0	0	4	70
Sobrato Office Phase II without Loop Road	0	0	0	0	2	0	0	0	0	0	0	0	2
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	1	0	0	0	0	0	1	0	0	0	0	2
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**13**	**106**	**1**	**3**	**35**	**5**	**9**	**192**	**6**	**15**	**135**	**60**	**580**
Cumul + Project Conditions without Loop Road	64	479	14	27	177	33	34	381	62	89	293	86	1739
check	64	479	14	27	177	33	34	381	62	89	293	86	
KIPP Charter HS Proj Trips No Loop	0	45	0	0	2	0	0	29	6	15	0	0	97
Existing + Proj No Loop Road	51	418	13	24	144	28	25	218	62	89	158	26	1256
check	51	418	13	24	144	28	25	218	62	89	158	26	
Cumul No Project Conditions without Loop Road	64	434	14	27	175	33	34	352	56	74	293	86	1642
check	64	434	14	27	175	33	34	352	56	74	293	86	

Intersection Number: 15
Traffix Node Number: 206
Intersection Name: Clarke Avenue & Shembri Lane (unsignalized)
Peak Hour: AM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.000
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

Scenario:	Movements North Approach RT	TH	LT	East Approach RT	TH	LT	South Approach RT	TH	LT	West Approach RT	TH	LT	*Total*
Existing Conditions	22	430	44	27	56	36	26	219	22	10	28	7	927
check	22	430	44	27	56	36	26	219	22	10	28	7	927
RVSP Proj Trips without Loop Rd	0	36	0	0	0	2	4	137	0	0	1	0	180
Approved+Pending Proj Trips in EPA out RVSP	0	0	61	38	20	50	60	0	0	0	15	0	244
The Primary School Proj Trips without Loop Road	0	7	21	25	0	0	0	8	0	0	0	0	61
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	1	0	0	0	0	0	1	0	0	0	0	2
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**44**	**82**	**63**	**20**	**52**	**64**	**146**	**0**	**0**	**16**	**0**	**487**
Cumul + Project Conditions without Loop Road	22	474	126	90	76	88	90	365	22	10	44	7	1414
check	22	474	126	90	76	88	90	365	22	10	44	7	
KIPP Charter HS Proj Trips No Loop	0	0	60	36	20	50	60	0	0	0	15	0	241
Existing + Proj No Loop Road	22	430	104	63	76	86	86	219	22	10	43	7	1168
check	22	430	104	63	76	86	86	219	22	10	43	7	
Cumul No Project Conditions without Loop Road	22	474	66	54	56	38	30	365	22	10	29	7	1173
check	22	474	66	54	56	38	30	365	22	10	29	7	

Intersection Number: 16
Traffix Node Number: 24
Intersection Name: Clarke Avenue & Donohoe Street (unsignalized)
Peak Hour: AM
Date of Analysis: 10/02/20
Count Date: 05/09/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

Scenario:	Movements North Approach RT	TH	LT	East Approach RT	TH	LT	South Approach RT	TH	LT	West Approach RT	TH	LT	*Total*
Existing Conditions	195	303	0	0	0	0	0	196	197	104	0	206	1201
check	195	303	0	0	0	0	0	196	197	104	0	206	1201
RVSP Proj Trips without Loop Rd	23	18	0	0	0	0	0	38	4	4	0	100	187
Approved+Pending Proj Trips in EPA out RVSP	27	2	0	0	0	0	0	2	1	2	0	33	67
The Primary School Proj Trips without Loop Road	4	4	0	0	0	0	0	4	0	0	0	4	16
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	4	4	1	0	0	9
University Circle Phase II	4	0	0	0	0	0	0	0	0	0	0	1	5
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	49	76	0	0	0	0	0	49	50	26	0	52	303
Total Cumulative Growth	**107**	**100**	**0**	**0**	**0**	**0**	**0**	**97**	**59**	**33**	**0**	**190**	**587**
Cumul + Project Conditions without Loop Road	302	403	0	0	0	0	0	293	256	137	0	396	1788
check	302	403	0	0	0	0	0	293	256	137	0	396	
KIPP Charter HS Proj Trips No Loop	26	2	0	0	0	0	0	2	0	0	0	33	63
Existing + Proj No Loop Road	221	305	0	0	0	0	0	198	197	104	0	239	1264
check	221	305	0	0	0	0	0	198	197	104	0	239	
Cumul No Project Conditions without Loop Road	276	401	0	0	0	0	0	291	256	137	0	363	1725
check	276	401	0	0	0	0	0	291	256	137	0	363	

Intersection Number:	17
Traffix Node Number:	27
Intersection Name:	Pulgas Avenue & Bay Road (unsignalized)
Peak Hour:	AM
Count Date:	02/28/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	18	3	1	2	15	5	5	27	265	296	19	77	733
check	18	3	1	2	15	5	5	27	265	296	19	77	733
RVSP Proj Trips without Loop Rd	17	16	0	0	161	60	401	42	77	61	925	33	1793
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	0	0	0	0	11	2	0	0	13
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	6	14	0	0	20
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	5	1	0	1	4	1	1	7	67	75	5	19	185
Total Cumulative Growth	**22**	**17**	**0**	**1**	**165**	**61**	**402**	**49**	**161**	**152**	**930**	**52**	**2011**
Cumul + Project Conditions without Loop Road	40	20	1	3	180	66	407	76	426	448	949	129	2744
check	40	20	1	3	180	66	407	76	426	448	949	129	
KIPP Charter HS Proj Trips No Loop	0	0	0	0	0	0	0	0	11	2	0	0	13
Existing + Proj No Loop Road	18	3	1	2	15	5	5	27	276	298	19	77	746
check	18	3	1	2	15	5	5	27	276	298	19	77	
Cumul No Project Conditions without Loop Road	40	20	1	3	180	66	407	76	415	446	949	129	2731
check	40	20	1	3	180	66	407	76	415	446	949	129	

Intersection Number:	18
Traffix Node Number:	28
Intersection Name:	Pulgas Avenue & Weeks Street (unsignalized)
Peak Hour:	AM
Count Date:	05/09/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.012
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	8	278	2	5	1	6	3	280	19	21	2	5	630
check	8	278	2	5	1	6	3	280	19	21	2	5	630
RVSP Proj Trips without Loop Rd	0	119	15	2	8	8	22	533	5	4	22	6	744
Approved+Pending Proj Trips in EPA out RVSP	0	2	0	0	0	0	0	11	0	0	0	0	13
The Primary School Proj Trips without Loop Road	0	0	14	6	137	36	41	0	0	0	150	0	384
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	2	70	1	1	0	2	1	71	5	5	1	1	159
Total Cumulative Growth	**2**	**191**	**30**	**9**	**145**	**46**	**64**	**615**	**10**	**9**	**173**	**7**	**1300**
Cumul + Project Conditions without Loop Road	10	469	32	14	146	52	67	895	29	30	175	12	1930
check	10	469	32	14	146	52	67	895	29	30	175	12	
KIPP Charter HS Proj Trips No Loop	0	2	0	0	0	0	0	11	0	0	0	0	13
Existing + Proj No Loop Road	8	280	2	5	1	6	3	291	19	21	2	5	643
check	8	280	2	5	1	6	3	291	19	21	2	5	
Cumul No Project Conditions without Loop Road	10	467	32	14	146	52	67	884	29	30	175	12	1917
check	10	467	32	14	146	52	67	884	29	30	175	12	

Intersection Number: 19
Traffix Node Number: 29
Intersection Name: Pulgas Avenue & Runnymede Street (unsignalized)
Peak Hour: AM — Date of Analysis: 10/02/20
Count Date: 05/09/19
Scenario: Without Loop Road — Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000 — Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0 — Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	20	226	60	64	98	98	105	218	63	51	123	23	1149
check	20	226	60	64	98	98	105	218	63	51	123	23	1149
RVSP Proj Trips without Loop Rd	32	99	0	1	4	1	0	416	0	0	1	143	697
Approved+Pending Proj Trips in EPA out RVSP	0	2	0	0	0	0	0	11	2	2	0	0	17
The Primary School Proj Trips without Loop Road	0	36	0	0	0	0	0	41	0	0	0	0	77
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	2	0	0	0	2
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	5	57	15	16	25	25	26	55	16	13	31	6	290
Total Cumulative Growth	**37**	**194**	**15**	**17**	**29**	**26**	**26**	**523**	**20**	**15**	**32**	**149**	**1083**
Cumul + Project Conditions without Loop Road	57	420	75	81	127	124	131	741	83	66	155	172	2232
check	57	420	75	81	127	124	131	741	83	66	155	172	
KIPP Charter HS Proj Trips No Loop	0	2	0	0	0	0	0	11	2	0	0	0	15
Existing + Proj No Loop Road	20	228	60	64	98	98	105	229	65	51	123	23	1164
check	20	228	60	64	98	98	105	229	65	51	123	23	
Cumul No Project Conditions without Loop Road	57	418	75	81	127	124	131	730	81	66	155	172	2217
check	57	418	75	81	127	124	131	730	81	66	155	172	

Intersection Number: 20
Traffix Node Number: 200
Intersection Name: Pulgas Avenue & Garden Street (unsignalized)
Peak Hour: AM — Date of Analysis: 10/02/20
Count Date: 01/22/19
Scenario: Without Loop Road — Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000 — Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0 — Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	20	400	6	4	10	9	11	294	22	21	3	22	822
check	20	400	6	4	10	9	11	294	22	21	3	22	822
RVSP Proj Trips without Loop Rd	3	98	0	0	0	0	0	413	0	0	0	4	518
Approved+Pending Proj Trips in EPA out RVSP	2	0	0	0	0	0	0	0	16	20	0	13	51
The Primary School Proj Trips without Loop Road	0	36	0	0	0	0	0	41	25	21	0	0	123
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	2	0	0	0	0	2
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	5	101	2	1	3	2	3	74	6	5	1	6	207
Total Cumulative Growth	**10**	**235**	**2**	**1**	**3**	**2**	**3**	**530**	**47**	**46**	**1**	**23**	**901**
Cumul + Project Conditions without Loop Road	30	635	8	5	13	11	14	824	69	67	4	45	1723
check	30	635	8	5	13	11	14	824	69	67	4	45	
KIPP Charter HS Proj Trips No Loop	2	0	0	0	0	0	0	0	16	18	0	13	49
Existing + Proj No Loop Road	22	400	6	4	10	9	11	294	38	39	3	35	871
check	22	400	6	4	10	9	11	294	38	39	3	35	
Cumul No Project Conditions without Loop Road	28	635	8	5	13	11	14	824	53	49	4	32	1674
check	28	635	8	5	13	11	14	824	53	49	4	32	

Intersection Number:	21		
Traffix Node Number:	30		
Intersection Name:	Pulgas Avenue & O'Connor Street (unsignalized)		
Peak Hour:	AM	Date of Analysis:	10/02/20
Count Date:	05/09/19		
Scenario:	Without Loop Road	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	145	219	68	98	142	22	12	144	29	15	57	60	1011
check	145	219	68	98	142	22	12	144	29	15	57	60	1011
RVSP Proj Trips without Loop Rd	11	70	12	44	1	0	0	314	0	2	1	55	510
Approved+Pending Proj Trips in EPA out RVSP	2	8	4	5	0	0	0	9	0	0	0	2	30
The Primary School Proj Trips without Loop Road	0	14	0	0	0	0	0	16	0	0	0	0	30
Sobrato Office Phase II without Loop Road	0	0	0	2	3	0	0	0	0	0	0	0	5
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	37	55	17	25	36	6	3	36	7	4	14	15	255
Total Cumulative Growth	**50**	**147**	**33**	**76**	**40**	**6**	**3**	**375**	**7**	**6**	**15**	**72**	**830**
Cumul + Project Conditions without Loop Road	195	366	101	174	182	28	15	519	36	21	72	132	1841
check	195	366	101	174	182	28	15	519	36	21	72	132	
KIPP Charter HS Proj Trips No Loop	2	8	4	5	0	0	0	9	0	0	0	2	30
Existing + Proj No Loop Road	147	227	72	103	142	22	12	153	29	15	57	62	1041
check	147	227	72	103	142	22	12	153	29	15	57	62	
Cumul No Project Conditions without Loop Road	193	358	97	169	182	28	15	510	36	21	72	130	1811
check	193	358	97	169	182	28	15	510	36	21	72	130	

Intersection Number: 1
Traffix Node Number: 4
Intersection Name: Ralmar Avenue & Newbridge Street/Bay Road
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 01/01/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.000
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	13	7	66	62	267	47	59	23	6	13	242	14	819
check	13	7	66	62	267	47	59	23	6	13	242	14	
RVSP Proj Trips without Loop Rd	0	0	0	0	379	0	0	0	0	0	140	0	519
Approved+Pending Proj Trips in EPA out RVSP	0	0	1	2	6	5	4	0	0	0	5	0	23
The Primary School Proj Trips without Loop Road	0	0	0	0	20	0	0	0	0	0	14	0	34
Sobrato Office Phase II without Loop Road	0	0	0	2	2	0	0	0	3	1	1	0	9
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	6	0	0	0	0	0	6	0	12
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**0**	**1**	**4**	**413**	**5**	**4**	**0**	**3**	**1**	**166**	**0**	**597**
Cumul + Project Conditions without Loop Road	13	7	67	66	680	52	63	23	9	14	408	14	1416
check	13	7	67	66	680	52	63	23	9	14	408	14	
KIPP Charter HS Proj Trips No Loop Rd	0	0	1	2	6	5	4	0	0	0	5	0	23
Existing + Proj No Loop Road	13	7	67	64	273	52	63	23	6	13	247	14	842
check	13	7	67	64	273	52	63	23	6	13	247	14	
Cumul No Project Conditions without Loop Road	13	7	66	64	674	47	59	23	9	14	403	14	1393
check	13	7	66	64	674	47	59	23	9	14	403	14	

Intersection Number: 2
Traffix Node Number: 11
Intersection Name: University Avenue & Bay Road
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 04/17/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	24	439	105	463	214	156	40	938	40	88	252	149	2908
check	24	439	105	463	214	156	40	938	40	88	252	149	
RVSP Proj Trips without Loop Rd	14	33	105	337	428	336	111	55	11	7	148	19	1604
Approved+Pending Proj Trips in EPA out RVSP	0	10	1	3	15	0	0	8	0	0	12	0	49
The Primary School Proj Trips without Loop Road	0	0	6	7	19	0	0	1	2	0	14	0	49
Sobrato Office Phase II without Loop Road	0	7	0	0	0	0	2	39	0	0	0	0	48
University Circle Phase II	0	5	0	0	0	0	0	23	0	0	0	0	28
2398 University Avenue Hotel Only	0	0	5	5	7	36	32	0	0	0	7	0	92
Regional Growth (2019 to 2040)	6	111	26	117	54	39	10	236	10	22	64	38	733
Total Cumulative Growth	**20**	**166**	**143**	**469**	**523**	**411**	**155**	**362**	**23**	**29**	**245**	**57**	**2603**
Cumul + Project Conditions without Loop Road	44	605	248	932	737	567	195	1300	63	117	497	206	5511
check	44	605	248	932	737	567	195	1300	63	117	497	206	
KIPP Charter HS Proj Trips No Loop Rd	0	2	1	1	15	0	0	3	0	0	12	0	34
Existing + Proj No Loop Road	24	441	106	464	229	156	40	941	40	88	264	149	2942
check	24	441	106	464	229	156	40	941	40	88	264	149	
Cumul No Project Conditions without Loop Road	44	603	247	931	722	567	195	1297	63	117	485	206	5477
check	44	603	247	931	722	567	195	1297	63	117	485	206	

Intersection Number: 3
Traffix Node Number: 13
Intersection Name: University Avenue & Bell Street
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 01/01/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	23	659	48	22	96	93	102	999	48	40	82	15	2227
check	23	659	48	22	96	93	102	999	48	40	82	15	
RVSP Proj Trips without Loop Rd	9	424	0	0	5	0	0	160	0	0	2	5	605
Approved+Pending Proj Trips in EPA out RVSP	0	8	0	0	5	10	6	5	0	0	4	0	38
The Primary School Proj Trips without Loop Road	0	9	0	0	4	0	0	6	0	0	3	0	22
Sobrato Office Phase II without Loop Road	0	8	0	0	0	0	0	19	0	0	2	22	51
University Circle Phase II	0	5	0	0	0	0	0	23	0	0	0	0	28
2398 University Avenue Hotel Only	1	28	0	1	0	0	0	29	0	0	0	1	60
Regional Growth (2019 to 2040)	6	166	12	6	24	23	26	252	12	10	21	4	561
Total Cumulative Growth	**16**	**648**	**12**	**7**	**38**	**33**	**32**	**494**	**12**	**10**	**32**	**32**	**1365**
Cumul + Project Conditions without Loop Road	39	1307	60	29	134	126	134	1493	60	50	114	47	3592
check	39	1307	60	29	134	126	134	1493	60	50	114	47	
KIPP Charter HS Proj Trips No Loop Rd	0	0	0	0	5	10	6	0	0	0	4	0	25
Existing + Proj No Loop Road	23	659	48	22	101	103	108	999	48	40	86	15	2252
check	23	659	48	22	101	103	108	999	48	40	86	15	
Cumul No Project Conditions without Loop Road	39	1307	60	29	129	116	128	1493	60	50	110	47	3567
check	39	1307	60	29	129	116	128	1493	60	50	110	47	

Intersection Number: 4
Traffix Node Number: 6
Intersection Name: US 101 NB On Ramp & Donohoe Street (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	2	1	1	0	674	406	0	0	0	79	227	0	1390
check	2	1	1	0	674	406	0	0	0	79	227	0	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	219	0	0	0	0	0	0	219
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	2	10	0	0	0	0	2	0	14
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	36	43	49	26	4	0	0	0	0	0	0	3	161
University Circle Phase II	0	0	0	0	12	0	0	0	0	0	2	0	14
2398 University Avenue Hotel Only	0	0	0	0	0	11	0	0	0	0	0	0	11
Regional Growth (2019 to 2040)	1	0	0	0	170	102	0	0	0	20	57	0	350
Total Cumulative Growth	**37**	**43**	**49**	**26**	**188**	**342**	**0**	**0**	**0**	**20**	**61**	**3**	**769**
Cumul + Project Conditions without Loop Road	39	44	50	26	862	748	0	0	0	99	288	3	2159
check	39	44	50	26	862	748	0	0	0	99	288	3	
KIPP Charter HS Proj Trips No Loop Rd	0	0	0	0	0	7	0	0	0	0	0	0	7
Existing + Proj No Loop Road	2	1	1	0	674	413	0	0	0	79	227	0	1397
check	2	1	1	0	674	413	0	0	0	79	227	0	
Cumul No Project Conditions without Loop Road	39	44	50	26	862	741	0	0	0	99	288	3	2152
check	39	44	50	26	862	741	0	0	0	99	288	3	

Intersection Number: 5
Traffix Node Number: 14
Intersection Name: University Avenue & Donohoe Street*
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 04/17/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	153	518	31	503	616	314	743	584	346	144	76	16	4044
check	153	518	31	503	616	314	743	584	346	144	76	16	
RVSP Proj Trips without Loop Rd	125	291	8	43	95	67	29	117	0	0	0	0	775
Approved+Pending Proj Trips in EPA out RVSP	2	16	0	0	8	22	19	11	2	2	0	0	82
The Primary School Proj Trips without Loop Road	0	9	0	0	0	2	1	6	0	0	0	0	18
Sobrato Office Phase II without Loop Road	4	63	0	0	15	0	0	0	11	21	9	19	142
University Circle Phase II	0	5	0	0	0	2	10	23	12	2	0	0	54
2398 University Avenue Hotel Only	11	17	0	14	0	0	0	15	0	0	0	0	57
Regional Growth (2019 to 2040)	39	131	8	127	155	79	187	147	87	36	19	4	1019
Total Cumulative Growth	**181**	**532**	**16**	**184**	**273**	**172**	**246**	**319**	**112**	**61**	**28**	**23**	**2147**
Cumul + Project Conditions without Loop Road	334	1050	47	687	889	486	989	903	458	205	104	39	6191
check	334	1050	47	687	889	486	989	903	458	205	104	39	
KIPP Charter HS Proj Trips No Loop Rd	2	8	0	0	5	19	16	6	0	0	0	0	56
Existing + Proj No Loop Road	155	526	31	503	621	333	759	590	346	144	76	16	4100
check	155	526	31	503	621	333	759	590	346	144	76	16	
Cumul No Project Conditions without Loop Road	332	1042	47	687	884	467	973	897	458	205	104	39	6135
check	332	1042	47	687	884	467	973	897	458	205	104	39	

Intersection Number: 6
Traffix Node Number: 18
Intersection Name: US 101 NB Off Ramp/University Plaza driveway & Donohoe Street*
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	64	0	8	17	652	0	573	18	729	0	880	0	2941
check	64	0	8	17	652	0	573	18	729	0	880	0	
RVSP Proj Trips without Loop Rd	0	0	0	0	167	0	58	0	37	0	37	0	299
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	30	0	4	0	0	0	19	0	53
The Primary School Proj Trips without Loop Road	0	0	0	0	2	0	0	0	0	0	1	0	3
Sobrato Office Phase II without Loop Road	0	0	0	0	2	0	0	0	13	0	9	0	24
University Circle Phase II	0	0	0	0	2	0	0	0	0	0	10	0	12
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	14	0	0	0	14
Regional Growth (2019 to 2040)	16	0	2	4	164	0	144	5	184	0	222	0	741
Total Cumulative Growth	**16**	**0**	**2**	**4**	**367**	**0**	**206**	**5**	**248**	**0**	**298**	**0**	**1146**
Cumul + Project Conditions without Loop Road	80	0	10	21	1019	0	779	23	977	0	1178	0	4087
check	80	0	10	21	1019	0	779	23	977	0	1178	0	
KIPP Charter HS Proj Trips No Loop Rd	0	0	0	0	24	0	3	0	0	0	16	0	43
Existing + Proj No Loop Road	64	0	8	17	676	0	576	18	729	0	896	0	2984
check	64	0	8	17	676	0	576	18	729	0	896	0	
Cumul No Project Conditions without Loop Road	80	0	10	21	995	0	776	23	977	0	1162	0	4044
check	80	0	10	21	995	0	776	23	977	0	1162	0	

Intersection Number: 7
Traffix Node Number: 19
Intersection Name: Cooley Avenue & Donohoe Street*
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	99	0	66	120	527	0	20	11	74	0	1014	401	2332
check	99	0	66	120	527	0	20	11	74	0	1014	401	
RVSP Proj Trips without Loop Rd	42	0	0	5	126	0	0	0	0	0	32	62	267
Approved+Pending Proj Trips in EPA out RVSP	9	0	0	0	21	0	0	0	0	0	17	6	53
The Primary School Proj Trips without Loop Road	0	0	0	0	2	0	0	0	0	0	1	0	3
Sobrato Office Phase II without Loop Road	0	0	0	0	1	0	0	0	0	0	7	2	10
University Circle Phase II	1	0	0	0	1	0	0	0	0	0	7	4	13
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	25	0	17	30	133	0	5	3	19	0	256	101	588
Total Cumulative Growth	**77**	**0**	**17**	**35**	**284**	**0**	**5**	**3**	**19**	**0**	**320**	**175**	**934**
Cumul + Project Conditions without Loop Road	176	0	83	155	811	0	25	14	93	0	1334	576	3266
check	176	0	83	155	811	0	25	14	93	0	1334	576	
KIPP Charter HS Proj Trips No Loop Rd	9	0	0	0	15	0	0	0	0	0	13	6	43
Existing + Proj No Loop Road	108	0	66	120	542	0	20	11	74	0	1027	407	2375
check	108	0	66	120	542	0	20	11	74	0	1027	407	
Cumul No Project Conditions without Loop Road	167	0	83	155	796	0	25	14	93	0	1321	570	3223
check	167	0	83	155	796	0	25	14	93	0	1321	570	

Intersection Number: 8
Traffix Node Number: 20
Intersection Name: E Bayshore Road & Donohoe Street*
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	754	396	149	0	7	26	463	0	0	0	0	1795
check	0	754	396	149	0	7	26	463	0	0	0	0	
RVSP Proj Trips without Loop Rd	0	3	29	125	0	0	0	6	0	0	0	0	163
Approved+Pending Proj Trips in EPA out RVSP	0	2	15	17	0	0	0	4	0	0	0	0	38
The Primary School Proj Trips without Loop Road	0	0	1	2	0	0	0	0	0	0	0	0	3
Sobrato Office Phase II without Loop Road	0	3	4	1	0	0	0	1	0	0	0	0	9
University Circle Phase II	0	3	4	1	0	0	0	1	0	0	0	0	9
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	190	100	38	0	2	7	117	0	0	0	0	452
Total Cumulative Growth	**0**	**201**	**153**	**184**	**0**	**2**	**7**	**129**	**0**	**0**	**0**	**0**	**674**
Cumul + Project Conditions without Loop Road	0	955	549	333	0	9	33	592	0	0	0	0	2469
check	0	955	549	333	0	9	33	592	0	0	0	0	
KIPP Charter HS Proj Trips No Loop Rd	0	0	13	15	0	0	0	0	0	0	0	0	28
Existing + Proj No Loop Road	0	754	409	164	0	7	26	463	0	0	0	0	1823
check	0	754	409	164	0	7	26	463	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	955	536	318	0	9	33	592	0	0	0	0	2441
check	0	955	536	318	0	9	33	592	0	0	0	0	

Intersection Number: 9
Traffix Node Number: 15
Intersection Name: University Avenue & US 101 SB Off-Ramp*
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	849	607	706	0	321	244	1102	0	0	0	0	3829
check	0	849	607	706	0	321	244	1102	0	0	0	0	
RVSP Proj Trips without Loop Rd	0	122	236	85	0	0	0	62	0	0	0	0	505
Approved+Pending Proj Trips in EPA out RVSP	0	59	4	5	0	27	14	43	0	0	0	0	152
The Primary School Proj Trips without Loop Road	0	11	0	0	0	0	0	8	0	0	0	0	19
Sobrato Office Phase II without Loop Road	0	16	69	8	0	0	0	3	0	0	0	0	96
University Circle Phase II	0	17	0	0	0	5	42	72	0	0	0	0	136
2398 University Avenue Hotel Only	0	4	24	0	0	0	0	4	0	0	0	0	32
Regional Growth (2019 to 2040)	0	214	153	178	0	81	61	278	0	0	0	0	965
Total Cumulative Growth	**0**	**443**	**486**	**276**	**0**	**113**	**117**	**470**	**0**	**0**	**0**	**0**	**1905**
Cumul + Project Conditions without Loop Road	0	1292	1093	982	0	434	361	1572	0	0	0	0	5734
check	0	1292	1093	982	0	434	361	1572	0	0	0	0	
KIPP Charter HS Proj Trips No Loop Rd	0	23	4	4	0	0	0	17	0	0	0	0	48
Existing + Proj No Loop Road	0	872	611	710	0	321	244	1119	0	0	0	0	3877
check	0	872	611	710	0	321	244	1119	0	0	0	0	
Cumul No Project Conditions without Loop Road	0	1269	1089	978	0	434	361	1555	0	0	0	0	5686
check	0	1269	1089	978	0	434	361	1555	0	0	0	0	

Intersection Number: 10
Traffix Node Number: 16
Intersection Name: University Avenue & Woodland Avenue*
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 04/17/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	360	545	223	247	57	12	13	615	25	45	70	396	2608
check	360	545	223	247	57	12	13	615	25	45	70	396	
RVSP Proj Trips without Loop Rd	0	122	0	0	0	0	0	62	0	0	0	0	184
Approved+Pending Proj Trips in EPA out RVSP	76	3	8	6	0	0	0	1	15	10	0	50	169
The Primary School Proj Trips without Loop Road	0	11	0	0	0	0	0	8	0	0	0	0	19
Sobrato Office Phase II without Loop Road	0	16	0	0	0	0	0	3	0	0	0	0	19
University Circle Phase II	22	0	0	0	1	0	0	0	1	7	4	113	148
2398 University Avenue Hotel Only	0	4	0	0	0	0	0	4	0	0	0	0	8
Regional Growth (2019 to 2040)	91	137	56	62	14	3	3	155	6	11	18	100	657
Total Cumulative Growth	**189**	**293**	**64**	**68**	**15**	**3**	**3**	**233**	**22**	**28**	**22**	**263**	**1204**
Cumul + Project Conditions without Loop Road	549	838	287	315	72	15	16	848	47	73	92	659	3812
check	549	838	287	315	72	15	16	848	47	73	92	659	
KIPP Charter HS Proj Trips No Loop Rd	14	2	8	6	0	0	0	1	0	0	0	10	41
Existing + Proj No Loop Road	374	547	231	253	57	12	13	616	25	45	70	406	2649
check	374	547	231	253	57	12	13	616	25	45	70	406	
Cumul No Project Conditions without Loop Road	535	836	279	309	72	15	16	847	47	73	92	649	3771
check	535	836	279	309	72	15	16	847	47	73	92	649	

Intersection Number: 11
Traffix Node Number: 17
Intersection Name: University Circle & Woodland Avenue*
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.000
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	12	0	218	68	332	0	0	0	0	0	405	8	1043
check	12	0	218	68	332	0	0	0	0	0	405	8	
RVSP Proj Trips without Loop Rd	0	0	0	0	0	0	0	0	0	0	0	0	0
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	91	0	0	0	0	0	59	0	150
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	4	0	124	24	0	0	0	0	0	0	0	1	153
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**4**	**0**	**124**	**24**	**91**	**0**	**0**	**0**	**0**	**0**	**59**	**1**	**303**
Cumul + Project Conditions without Loop Road	16	0	342	92	423	0	0	0	0	0	464	9	1346
check	16	0	342	92	423	0	0	0	0	0	464	9	
KIPP Charter HS Proj Trips No Loop Rd	0	0	0	0	14	0	0	0	0	0	10	0	24
Existing + Proj No Loop Road	12	0	218	68	346	0	0	0	0	0	415	8	1067
check	12	0	218	68	346	0	0	0	0	0	415	8	
Cumul No Project Conditions without Loop Road	16	0	342	92	409	0	0	0	0	0	454	9	1322
check	16	0	342	92	409	0	0	0	0	0	454	9	

Intersection Number: 12
Traffix Node Number: 21
Intersection Name: Clarke Avenue & Bay Road (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/09/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.000
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	22	78	29	94	511	43	40	125	256	146	199	18	1561
check	22	78	29	94	511	43	40	125	256	146	199	18	
RVSP Proj Trips without Loop Rd	3	4	72	288	966	110	42	10	32	27	260	5	1819
Approved+Pending Proj Trips in EPA out RVSP	0	6	0	2	4	0	0	6	13	12	1	0	44
The Primary School Proj Trips without Loop Road	0	6	0	0	3	0	0	8	23	16	4	0	60
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	2	2
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	5	0	0	0	0	0	0	0	1	2	0	5	13
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**8**	**16**	**72**	**290**	**973**	**110**	**42**	**24**	**69**	**57**	**265**	**12**	**1938**
Cumul + Project Conditions without Loop Road	30	94	101	384	1484	153	82	149	325	203	464	30	3499
check	30	94	101	384	1484	153	82	149	325	203	464	30	
KIPP Charter HS Proj Trips No Loop Rd	0	6	0	2	4	0	0	6	11	12	1	0	42
Existing + Proj No Loop Road	22	84	29	96	515	43	40	131	267	158	200	18	1603
check	22	84	29	96	515	43	40	131	267	158	200	18	
Cumul No Project Conditions without Loop Road	30	88	101	382	1480	153	82	143	314	191	463	30	3457
check	30	88	101	382	1480	153	82	143	314	191	463	30	

Intersection Number:	13
Traffix Node Number:	22
Intersection Name:	Clarke Avenue & Weeks Street (unsignalized)
Peak Hour:	PM
Count Date:	05/09/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.000
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	23	238	21	14	6	7	16	406	18	9	2	26	786
check	23	238	21	14	6	7	16	406	18	9	2	26	
RVSP Proj Trips without Loop Rd	2	131	11	21	20	7	5	51	0	0	9	7	264
Approved+Pending Proj Trips in EPA out RVSP	0	17	0	0	0	0	0	19	0	0	0	0	36
The Primary School Proj Trips without Loop Road	0	0	22	31	23	17	12	0	0	0	14	0	119
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	2	0	0	0	0	0	1	0	0	0	0	3
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**2**	**150**	**33**	**52**	**43**	**24**	**17**	**71**	**0**	**0**	**23**	**7**	**422**
Cumul + Project Conditions without Loop Road	25	388	54	66	49	31	33	477	18	9	25	33	1208
check	25	388	54	66	49	31	33	477	18	9	25	33	
KIPP Charter HS Proj Trips No Loop Rd	0	17	0	0	0	0	0	17	0	0	0	0	34
Existing + Proj No Loop Road	23	255	21	14	6	7	16	423	18	9	2	26	820
check	23	255	21	14	6	7	16	423	18	9	2	26	
Cumul No Project Conditions without Loop Road	25	371	54	66	49	31	33	460	18	9	25	33	1174
check	25	371	54	66	49	31	33	460	18	9	25	33	

Intersection Number:	14
Traffix Node Number:	23
Intersection Name:	Clarke Avenue & Runnymede Street (unsignalized)
Peak Hour:	PM
Count Date:	05/09/19
Scenario:	Without Loop Road
(SJ) Growth Factor:	0.000
(SJ) Number of Months:	0.0

Date of Analysis: 10/02/20
Future Growth % Per Year for minor Roads: 0
Future Growth % Per Year for Major Roads: 0.000
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	34	189	23	18	70	16	33	324	40	30	112	119	1008
check	34	189	23	18	70	16	33	324	40	30	112	119	
RVSP Proj Trips without Loop Rd	18	121	0	0	115	9	5	36	0	0	40	20	364
Approved+Pending Proj Trips in EPA out RVSP	0	17	3	2	1	0	0	19	4	6	0	0	52
The Primary School Proj Trips without Loop Road	2	15	0	0	0	0	0	10	0	0	0	1	28
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	2	0	0	0	0	0	1	0	0	0	0	3
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**20**	**155**	**3**	**2**	**116**	**9**	**5**	**66**	**4**	**6**	**40**	**21**	**447**
Cumul + Project Conditions without Loop Road	54	344	26	20	186	25	38	390	44	36	152	140	1455
check	54	344	26	20	186	25	38	390	44	36	152	140	
KIPP Charter HS Proj Trips No Loop Rd	0	17	0	0	1	0	0	17	4	6	0	0	45
Existing + Proj No Loop Road	34	206	23	18	71	16	33	341	44	36	112	119	1053
check	34	206	23	18	71	16	33	341	44	36	112	119	
Cumul No Project Conditions without Loop Road	54	327	26	20	185	25	38	373	40	30	152	140	1410
check	54	327	26	20	185	25	38	373	40	30	152	140	

Intersection Number: 15
Traffix Node Number: 206
Intersection Name: Clarke Avenue & Shembri Lane (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/21/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.000
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	15	213	20	9	18	12	38	389	12	9	9	26	770
check	15	213	20	9	18	12	38	389	12	9	9	26	
RVSP Proj Trips without Loop Rd	0	130	0	0	0	4	3	41	0	0	0	0	178
Approved+Pending Proj Trips in EPA out RVSP	0	0	25	22	12	30	23	0	0	0	6	0	118
The Primary School Proj Trips without Loop Road	0	4	11	8	0	0	0	3	0	0	0	0	26
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	2	0	0	0	0	0	1	0	0	0	0	3
Regional Growth (2019 to 2040)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cumulative Growth	**0**	**136**	**36**	**30**	**12**	**34**	**26**	**45**	**0**	**0**	**6**	**0**	**325**
Cumul + Project Conditions without Loop Road	15	349	56	39	30	46	64	434	12	9	15	26	1095
check	15	349	56	39	30	46	64	434	12	9	15	26	
KIPP Charter HS Proj Trips No Loop Rd	0	0	23	21	12	30	23	0	0	0	6	0	115
Existing + Proj No Loop Road	15	213	43	30	30	42	61	389	12	9	15	26	885
check	15	213	43	30	30	42	61	389	12	9	15	26	
Cumul No Project Conditions without Loop Road	15	349	33	18	18	16	41	434	12	9	9	26	980
check	15	349	33	18	18	16	41	434	12	9	9	26	

Intersection Number: 16
Traffix Node Number: 24
Intersection Name: Clarke Avenue & Donohoe Street (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/09/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	124	178	0	0	0	0	0	227	151	124	0	345	1149
check	124	178	0	0	0	0	0	227	151	124	0	345	
RVSP Proj Trips without Loop Rd	120	40	0	0	0	0	0	19	5	5	0	24	213
Approved+Pending Proj Trips in EPA out RVSP	15	1	0	0	0	0	0	4	2	2	0	13	37
The Primary School Proj Trips without Loop Road	2	2	0	0	0	0	0	1	0	0	0	1	6
Sobrato Office Phase II without Loop Road	0	2	0	0	0	0	0	1	1	4	0	0	8
University Circle Phase II	1	0	0	0	0	0	0	0	0	0	0	4	5
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	31	45	0	0	0	0	0	57	38	31	0	87	290
Total Cumulative Growth	**169**	**90**	**0**	**0**	**0**	**0**	**0**	**82**	**46**	**42**	**0**	**129**	**559**
Cumul + Project Conditions without Loop Road	293	268	0	0	0	0	0	309	197	166	0	474	1708
check	293	268	0	0	0	0	0	309	197	166	0	474	
KIPP Charter HS Proj Trips No Loop Rd	15	1	0	0	0	0	0	1	0	0	0	13	30
Existing + Proj No Loop Road	139	179	0	0	0	0	0	228	151	124	0	358	1179
check	139	179	0	0	0	0	0	228	151	124	0	358	
Cumul No Project Conditions without Loop Road	278	267	0	0	0	0	0	308	197	166	0	461	1678
check	278	267	0	0	0	0	0	308	197	166	0	461	

Intersection Number: 17
Traffix Node Number: 27
Intersection Name: Pulgas Avenue & Bay Road (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 02/28/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	66	23	3	3	38	11	15	22	525	174	14	45	939
check	66	23	3	3	38	11	15	22	525	174	14	45	
RVSP Proj Trips without Loop Rd	36	44	0	0	881	344	86	19	57	79	203	21	1770
Approved+Pending Proj Trips in EPA out RVSP	0	0	0	0	0	0	0	0	6	1	0	0	7
The Primary School Proj Trips without Loop Road	0	0	0	0	0	0	0	0	3	4	0	0	7
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	17	6	1	1	10	3	4	6	132	44	4	11	237
Total Cumulative Growth	**53**	**50**	**1**	**1**	**891**	**347**	**90**	**25**	**198**	**128**	**207**	**32**	**2021**
Cumul + Project Conditions without Loop Road	119	73	4	4	929	358	105	47	723	302	221	77	2960
check	119	73	4	4	929	358	105	47	723	302	221	77	
KIPP Charter HS Proj Trips No Loop Rd	0	0	0	0	0	0	0	0	6	1	0	0	7
Existing + Proj No Loop Road	66	23	3	3	38	11	15	22	531	175	14	45	946
check	66	23	3	3	38	11	15	22	531	175	14	45	
Cumul No Project Conditions without Loop Road	119	73	4	4	929	358	105	47	717	301	221	77	2953
check	119	73	4	4	929	358	105	47	717	301	221	77	

Intersection Number: 18
Traffix Node Number: 28
Intersection Name: Pulgas Avenue & Weeks Street (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/09/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	16	224	3	4	2	2	8	474	14	14	3	14	778
check	16	224	3	4	2	2	8	474	14	14	3	14	
RVSP Proj Trips without Loop Rd	0	485	4	9	26	25	8	148	4	5	6	2	722
Approved+Pending Proj Trips in EPA out RVSP	0	1	0	0	0	0	0	6	0	0	0	0	7
The Primary School Proj Trips without Loop Road	0	0	4	3	71	19	13	0	0	0	48	0	158
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	4	56	1	1	1	1	2	119	4	4	1	4	196
Total Cumulative Growth	**4**	**542**	**9**	**13**	**98**	**45**	**23**	**273**	**8**	**9**	**55**	**6**	**1083**
Cumul + Project Conditions without Loop Road	20	766	12	17	100	47	31	747	22	23	58	20	1861
check	20	766	12	17	100	47	31	747	22	23	58	20	
KIPP Charter HS Proj Trips No Loop Rd	0	1	0	0	0	0	0	6	0	0	0	0	7
Existing + Proj No Loop Road	16	225	3	4	2	2	8	480	14	14	3	14	785
check	16	225	3	4	2	2	8	480	14	14	3	14	
Cumul No Project Conditions without Loop Road	20	765	12	17	100	47	31	741	22	23	58	20	1854
check	20	765	12	17	100	47	31	741	22	23	58	20	

Intersection Number: 19
Traffix Node Number: 29
Intersection Name: Pulgas Avenue & Runnymede Street (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 05/09/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	21	176	36	23	30	27	46	451	55	44	74	47	1030
check	21	176	36	23	30	27	46	451	55	44	74	47	
RVSP Proj Trips without Loop Rd	123	390	1	0	1	0	1	119	0	0	4	41	680
Approved+Pending Proj Trips in EPA out RVSP	0	1	0	0	0	0	0	6	3	1	0	0	11
The Primary School Proj Trips without Loop Road	0	19	0	0	0	0	0	13	0	0	0	0	32
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	5	44	9	6	8	7	12	114	14	11	19	12	260
Total Cumulative Growth	**128**	**454**	**10**	**6**	**9**	**7**	**13**	**252**	**17**	**12**	**23**	**53**	**983**
Cumul + Project Conditions without Loop Road	149	630	46	29	39	34	59	703	72	56	97	100	2013
check	149	630	46	29	39	34	59	703	72	56	97	100	
KIPP Charter HS Proj Trips No Loop Rd	0	1	0	0	0	0	0	6	1	0	0	0	8
Existing + Proj No Loop Road	21	177	36	23	30	27	46	457	56	44	74	47	1038
check	21	177	36	23	30	27	46	457	56	44	74	47	
Cumul No Project Conditions without Loop Road	149	629	46	29	39	34	59	697	71	56	97	100	2005
check	149	629	46	29	39	34	59	697	71	56	97	100	

Intersection Number: 20
Traffix Node Number: 200
Intersection Name: Pulgas Avenue & Garden Street (unsignalized)
Peak Hour: PM
Date of Analysis: 10/02/20
Count Date: 01/22/19
Scenario: Without Loop Road
Future Growth % Per Year for minor Roads: 0
(SJ) Growth Factor: 0.000
Future Growth % Per Year for Major Roads: 0.012
(SJ) Number of Months: 0.0
Number of Years to Buildout: 21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	17	211	6	7	5	6	14	520	29	20	6	18	859
check	17	211	6	7	5	6	14	520	29	20	6	18	
RVSP Proj Trips without Loop Rd	4	387	0	0	0	0	0	117	0	0	0	3	511
Approved+Pending Proj Trips in EPA out RVSP	1	0	0	0	0	0	0	2	8	12	0	8	31
The Primary School Proj Trips without Loop Road	0	19	0	0	0	0	0	13	8	11	0	0	51
Sobrato Office Phase II without Loop Road	0	0	0	0	0	0	0	0	0	0	0	0	0
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	4	53	2	2	1	2	4	131	7	5	2	5	216
Total Cumulative Growth	**9**	**459**	**2**	**2**	**1**	**2**	**4**	**263**	**23**	**28**	**2**	**16**	**809**
Cumul + Project Conditions without Loop Road	26	670	8	9	6	8	18	783	52	48	8	34	1668
check	26	670	8	9	6	8	18	783	52	48	8	34	
KIPP Charter HS Proj Trips No Loop Rd	1	0	0	0	0	0	0	0	6	11	0	8	26
Existing + Proj No Loop Road	18	211	6	7	5	6	14	520	35	31	6	26	885
check	18	211	6	7	5	6	14	520	35	31	6	26	
Cumul No Project Conditions without Loop Road	25	670	8	9	6	8	18	783	46	37	8	26	1642
check	25	670	8	9	6	8	18	783	46	37	8	26	

Intersection Number:	21		
Traffix Node Number:	30		
Intersection Name:	Pulgas Avenue & O'Connor Street (unsignalized)		
Peak Hour:	PM	Date of Analysis:	10/02/20
Count Date:	05/09/19		
Scenario:	Without Loop Road	Future Growth % Per Year for minor Roads:	0
(SJ) Growth Factor:	0.000	Future Growth % Per Year for Major Roads:	0.012
(SJ) Number of Months:	0.0	Number of Years to Buildout:	21

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	65	143	55	64	92	33	27	401	17	32	132	59	1120
check	65	143	55	64	92	33	27	401	17	32	132	59	
RVSP Proj Trips without Loop Rd	52	266	42	14	2	0	0	90	0	1	2	14	483
Approved+Pending Proj Trips in EPA out RVSP	1	5	2	2	0	0	0	4	0	0	0	1	15
The Primary School Proj Trips without Loop Road	0	7	0	0	0	0	0	5	0	0	0	0	12
Sobrato Office Phase II without Loop Road	0	0	2	0	0	0	0	0	0	0	2	0	4
University Circle Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0
2398 University Avenue Hotel Only	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Growth (2019 to 2040)	16	36	14	16	23	8	7	101	4	8	33	15	282
Total Cumulative Growth	**69**	**314**	**60**	**32**	**25**	**8**	**7**	**200**	**4**	**9**	**37**	**30**	**796**
Cumul + Project Conditions without Loop Road	134	457	115	96	117	41	34	601	21	41	169	89	1916
check	134	457	115	96	117	41	34	601	21	41	169	89	
KIPP Charter HS Proj Trips No Loop Rd	1	5	2	2	0	0	0	4	0	0	0	1	15
Existing + Proj No Loop Road	66	148	57	66	92	33	27	405	17	32	132	60	1135
check	66	148	57	66	92	33	27	405	17	32	132	60	
Cumul No Project Conditions without Loop Road	133	452	113	94	117	41	34	597	21	41	169	88	1901
check	133	452	113	94	117	41	34	597	21	41	169	88	

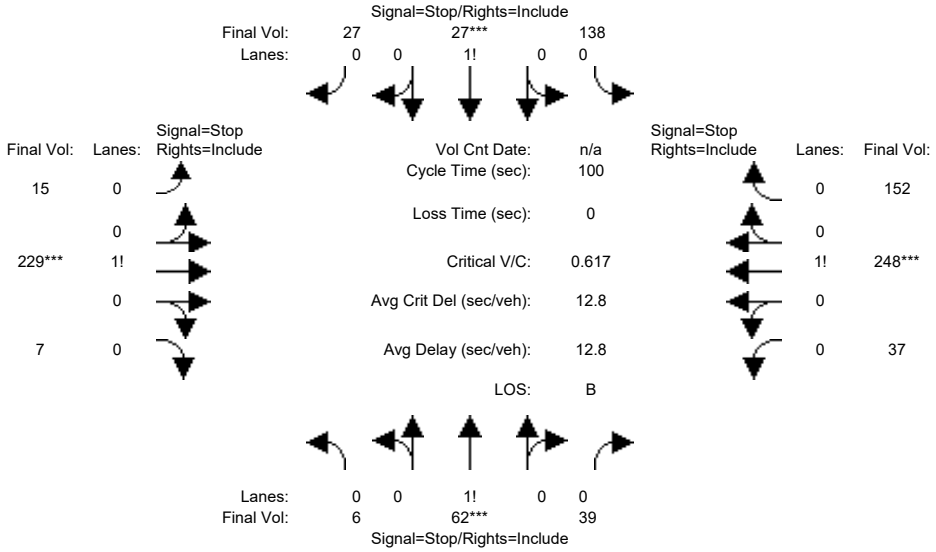
Appendix C

Intersection Level of Service Calculations

KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	6	62	39	138	27	27	15	229	7	37	248	152
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:	6	62	39	138	27	27	15	229	7	37	248	152
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	62	39	138	27	27	15	229	7	37	248	152
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:	6	62	39	138	27	27	15	229	7	37	248	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	62	39	138	27	27	15	229	7	37	248	152
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:	6	62	39	138	27	27	15	229	7	37	248	152
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.58	0.36	0.72	0.14	0.14	0.06	0.91	0.03	0.08	0.57	0.35
Final Sat.:	31	320	201	407	80	80	38	583	18	60	402	246
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.19	0.34	0.34	0.34	0.39	0.39	0.39	0.62	0.62	0.62
Crit Moves:		****			****			****			****	
Delay/Veh:	9.9	9.9	9.9	11.4	11.4	11.4	11.4	11.4	11.4	14.9	14.9	14.9
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
AdjDel/Veh:	9.9	9.9	9.9	11.4	11.4	11.4	11.4	11.4	11.4	14.9	14.9	14.9
LOS by Move:	A	A	A	B	B	B	B	B	B	B	B	B
ApproachDel:		9.9			11.4			11.4			14.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.9			11.4			11.4			14.9	
LOS by Appr:		A			B			B			B	
AllWayAvgQ:	0.2	0.2	0.2	0.4	0.4	0.4	0.6	0.6	0.6	1.4	1.4	1.4

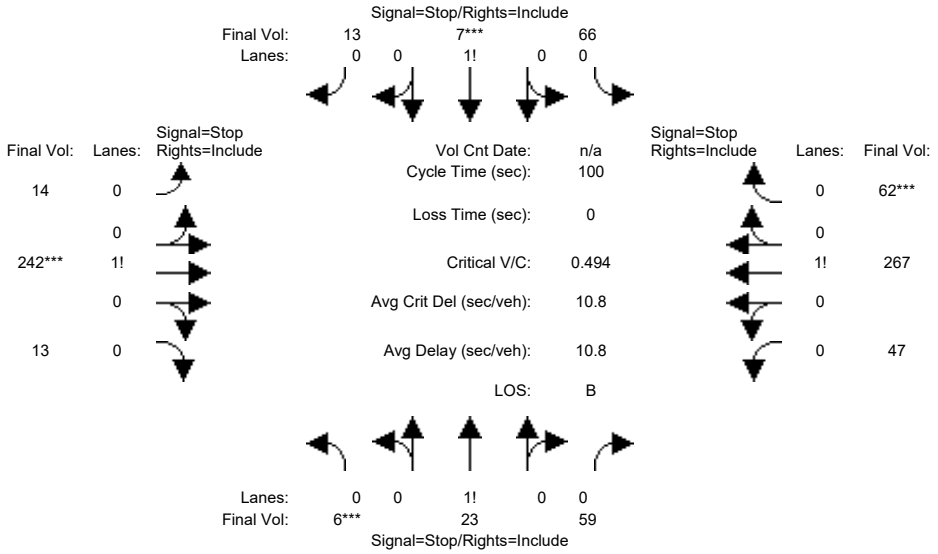
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	6	23	59	66	7	13	14	242	13	47	267	62
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:	6	23	59	66	7	13	14	242	13	47	267	62
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	23	59	66	7	13	14	242	13	47	267	62
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:	6	23	59	66	7	13	14	242	13	47	267	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	23	59	66	7	13	14	242	13	47	267	62
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:	6	23	59	66	7	13	14	242	13	47	267	62
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.26	0.67	0.77	0.08	0.15	0.05	0.90	0.05	0.13	0.71	0.16
Final Sat.:	43	165	422	450	48	89	38	655	35	95	541	126
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.15	0.15	0.15	0.37	0.37	0.37	0.49	0.49	0.49
Crit Moves:	****				****			****				****
Delay/Veh:	8.8	8.8	8.8	9.4	9.4	9.4	10.4	10.4	10.4	11.8	11.8	11.8
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
AdjDel/Veh:	8.8	8.8	8.8	9.4	9.4	9.4	10.4	10.4	10.4	11.8	11.8	11.8
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
ApproachDel:	8.8			9.4			10.4			11.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.8			9.4			10.4			11.8		
LOS by Appr:	A			A			B			B		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.9	0.9	0.9

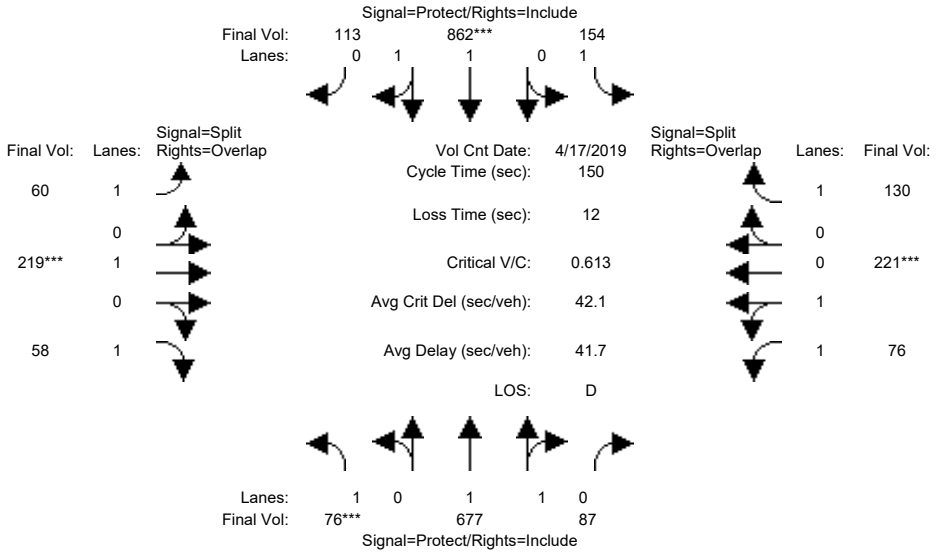
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

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

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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	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: >> Count Date: 17 Apr 2019 <<												
Base Vol:	76	677	87	154	862	113	60	219	58	76	221	130
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	677	87	154	862	113	60	219	58	76	221	130
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	677	87	154	862	113	60	219	58	76	221	130
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	677	87	154	862	113	60	219	58	76	221	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	677	87	154	862	113	60	219	58	76	221	130
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	677	87	154	862	113	60	219	58	76	221	130
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.91	0.92	0.91	0.91	0.93	0.98	0.83	0.97	0.97	0.83
Lanes:	1.00	1.77	0.23	1.00	1.77	0.23	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1753	3053	392	1753	3046	399	1769	1862	1583	1838	1838	1583
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.22	0.09	0.28	0.28	0.03	0.12	0.04	0.04	0.12	0.08
Crit Moves:	****				****			****			****	
Green/Cycle:	0.07	0.38	0.38	0.15	0.46	0.46	0.19	0.19	0.26	0.20	0.20	0.35
Volume/Cap:	0.61	0.58	0.58	0.58	0.61	0.61	0.18	0.61	0.14	0.21	0.61	0.24
Delay/Veh:	76.5	37.6	37.6	62.5	31.1	31.1	51.0	58.7	42.5	50.6	57.4	35.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.5	37.6	37.6	62.5	31.1	31.1	51.0	58.7	42.5	50.6	57.4	35.1
LOS by Move:	E	D	D	E	C	C	D	E	D	D	E	D
HCM2kAvgQ:	4	15	15	7	18	18	2	10	2	3	10	4

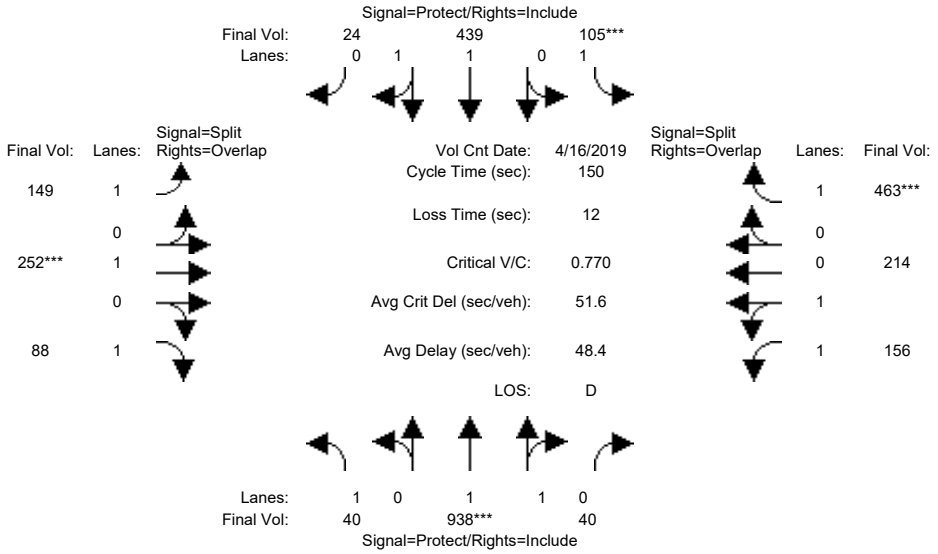
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

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

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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	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: >> Count Date: 16 Apr 2019 <<												
Base Vol:	40	938	40	105	439	24	149	252	88	156	214	463
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:	40	938	40	105	439	24	149	252	88	156	214	463
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	938	40	105	439	24	149	252	88	156	214	463
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:	40	938	40	105	439	24	149	252	88	156	214	463
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	938	40	105	439	24	149	252	88	156	214	463
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:	40	938	40	105	439	24	149	252	88	156	214	463
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.98	0.83	0.96	0.96	0.83
Lanes:	1.00	1.92	0.08	1.00	1.90	0.10	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1753	3342	143	1753	3297	180	1769	1862	1583	1823	1823	1583
Capacity Analysis Module:												
Vol/Sat:	0.02	0.28	0.28	0.06	0.13	0.13	0.08	0.14	0.06	0.09	0.12	0.29
Crit Moves:		****		****				****				****
Green/Cycle:	0.11	0.36	0.36	0.08	0.33	0.33	0.18	0.18	0.29	0.30	0.30	0.38
Volume/Cap:	0.20	0.77	0.77	0.77	0.41	0.41	0.48	0.77	0.19	0.28	0.39	0.77
Delay/Veh:	60.6	45.1	45.1	90.9	39.4	39.4	56.8	69.6	40.2	40.1	41.7	46.8
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:	60.6	45.1	45.1	90.9	39.4	39.4	56.8	69.6	40.2	40.1	41.7	46.8
LOS by Move:	E	D	D	F	D	D	E	E	D	D	D	D
HCM2kAvgQ:	2	22	22	6	9	9	6	13	3	5	8	20

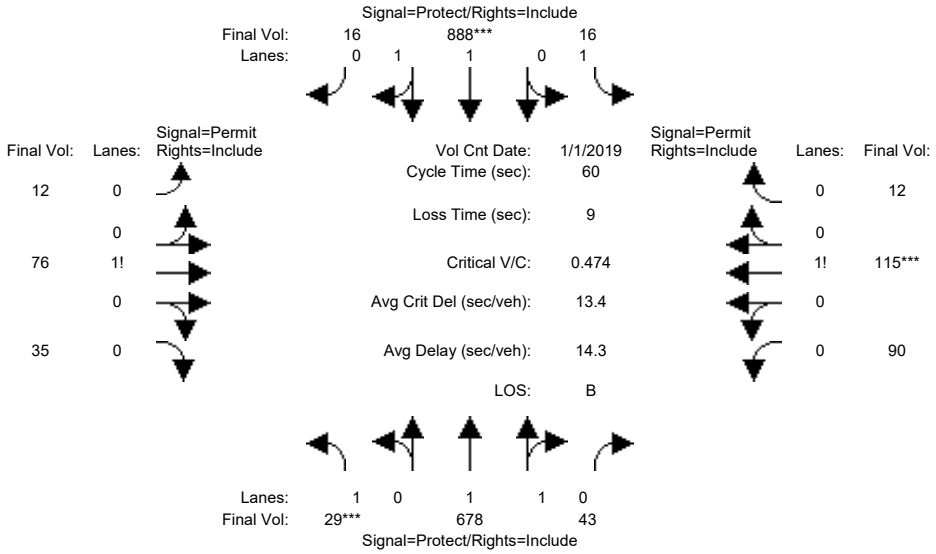
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

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

Intersection #13: University Avenue and Bell Street



Street Name:	University Avenue						Bell Street					
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	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: >> Count Date: 1 Jan 2019 << 7:15-8:15 AM												
Base Vol:	29	678	43	16	888	16	12	76	35	90	115	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:	29	678	43	16	888	16	12	76	35	90	115	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	678	43	16	888	16	12	76	35	90	115	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:	29	678	43	16	888	16	12	76	35	90	115	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	678	43	16	888	16	12	76	35	90	115	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:	29	678	43	16	888	16	12	76	35	90	115	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93	0.84	0.84	0.84
Lanes:	1.00	1.88	0.12	1.00	1.96	0.04	0.10	0.62	0.28	0.41	0.53	0.06
Final Sat.:	1805	3364	213	1805	3535	64	172	1091	502	662	846	88
Capacity Analysis Module:												
Vol/Sat:	0.02	0.20	0.20	0.01	0.25	0.25	0.07	0.07	0.07	0.14	0.14	0.14
Crit Moves:	****				****						****	
Green/Cycle:	0.12	0.38	0.38	0.22	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.14	0.54	0.54	0.04	0.53	0.53	0.27	0.27	0.27	0.53	0.53	0.53
Delay/Veh:	24.1	15.1	15.1	18.6	11.3	11.3	18.1	18.1	18.1	20.4	20.4	20.4
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:	24.1	15.1	15.1	18.6	11.3	11.3	18.1	18.1	18.1	20.4	20.4	20.4
LOS by Move:	C	B	B	B	B	B	B	B	B	C	C	C
HCM2kAvgQ:	0	5	5	0	6	6	2	2	2	4	4	4

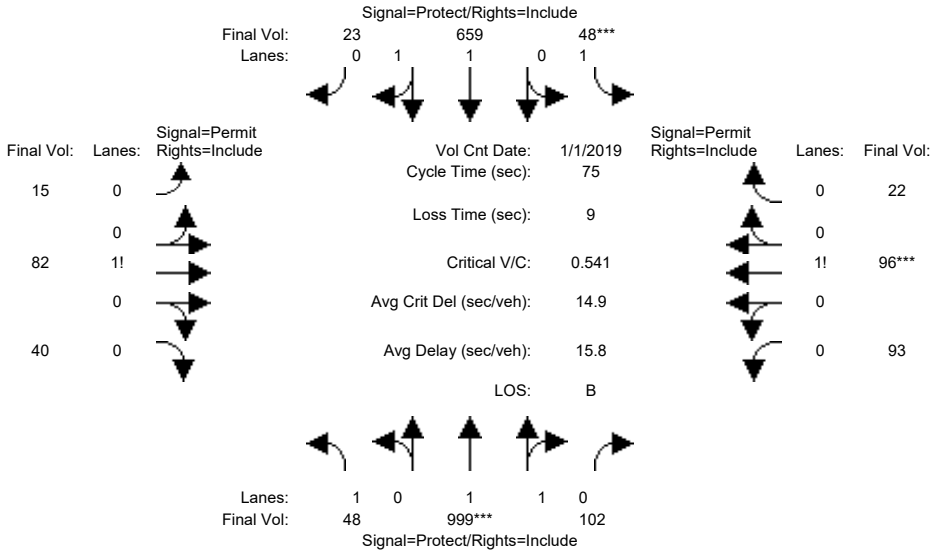
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

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

Intersection #13: University Avenue and Bell Street



Street Name:	University Avenue						Bell Street					
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	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: >> Count Date: 1 Jan 2019 << 4:30-5:30 PM												
Base Vol:	48	999	102	48	659	23	15	82	40	93	96	22
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	999	102	48	659	23	15	82	40	93	96	22
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	48	999	102	48	659	23	15	82	40	93	96	22
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	999	102	48	659	23	15	82	40	93	96	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	999	102	48	659	23	15	82	40	93	96	22
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	999	102	48	659	23	15	82	40	93	96	22
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.92	0.92	0.92	0.79	0.79	0.79
Lanes:	1.00	1.81	0.19	1.00	1.93	0.07	0.11	0.60	0.29	0.44	0.46	0.10
Final Sat.:	1805	3230	330	1805	3471	121	192	1050	512	666	687	157
Capacity Analysis Module:												
Vol/Sat:	0.03	0.31	0.31	0.03	0.19	0.19	0.08	0.08	0.08	0.14	0.14	0.14
Crit Moves:		****		****							****	
Green/Cycle:	0.21	0.54	0.54	0.09	0.43	0.43	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.13	0.57	0.57	0.28	0.45	0.45	0.32	0.32	0.32	0.57	0.57	0.57
Delay/Veh:	24.2	11.8	11.8	32.6	15.5	15.5	23.6	23.6	23.6	27.0	27.0	27.0
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:	24.2	11.8	11.8	32.6	15.5	15.5	23.6	23.6	23.6	27.0	27.0	27.0
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	1	9	9	1	6	6	3	3	3	5	5	5

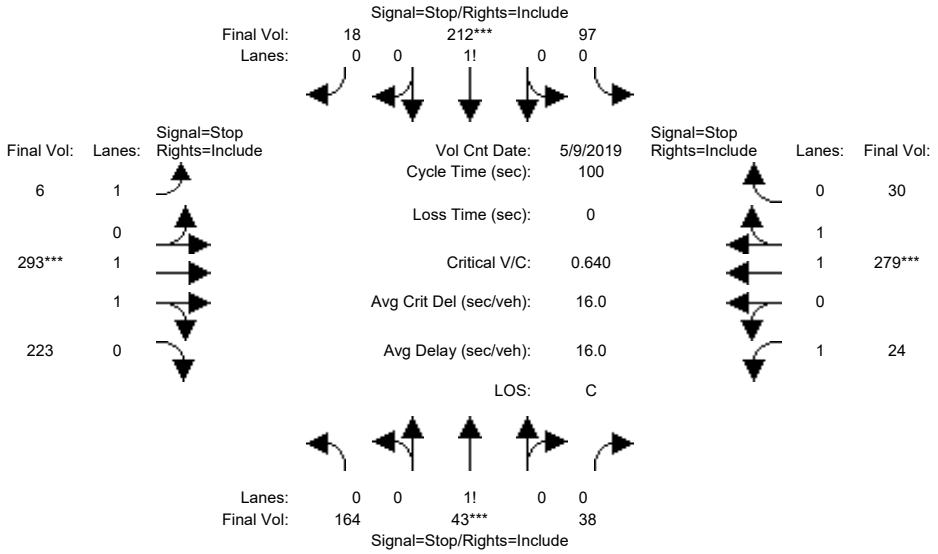
Note: Queue reported is the number of cars per lane.

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City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #21: Clarke Avenue and Bay Road



Street Name:	Clarke Ave						Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	164	43	38	97	212	18	6	293	223	24	279	30
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:	164	43	38	97	212	18	6	293	223	24	279	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	164	43	38	97	212	18	6	293	223	24	279	30
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:	164	43	38	97	212	18	6	293	223	24	279	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	43	38	97	212	18	6	293	223	24	279	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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:	164	43	38	97	212	18	6	293	223	24	279	30
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.67	0.18	0.15	0.30	0.65	0.05	1.00	1.14	0.86	1.00	1.81	0.19
Final Sat.:	324	85	75	152	331	28	463	570	469	438	851	92
Capacity Analysis Module:												
Vol/Sat:	0.51	0.51	0.51	0.64	0.64	0.64	0.01	0.51	0.48	0.05	0.33	0.32
Crit Moves:		****			****			****			****	
Delay/Veh:	16.2	16.2	16.2	19.9	19.9	19.9	10.3	16.4	14.5	10.9	13.1	13.0
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
AdjDel/Veh:	16.2	16.2	16.2	19.9	19.9	19.9	10.3	16.4	14.5	10.9	13.1	13.0
LOS by Move:	C	C	C	C	C	C	B	C	B	B	B	B
ApproachDel:		16.2			19.9			15.5			13.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.2			19.9			15.5			13.0	
LOS by Appr:		C			C			C			B	
AllWayAvgQ:	0.8	0.8	0.8	1.4	1.4	1.4	0.0	1.0	0.8	0.1	0.4	0.4

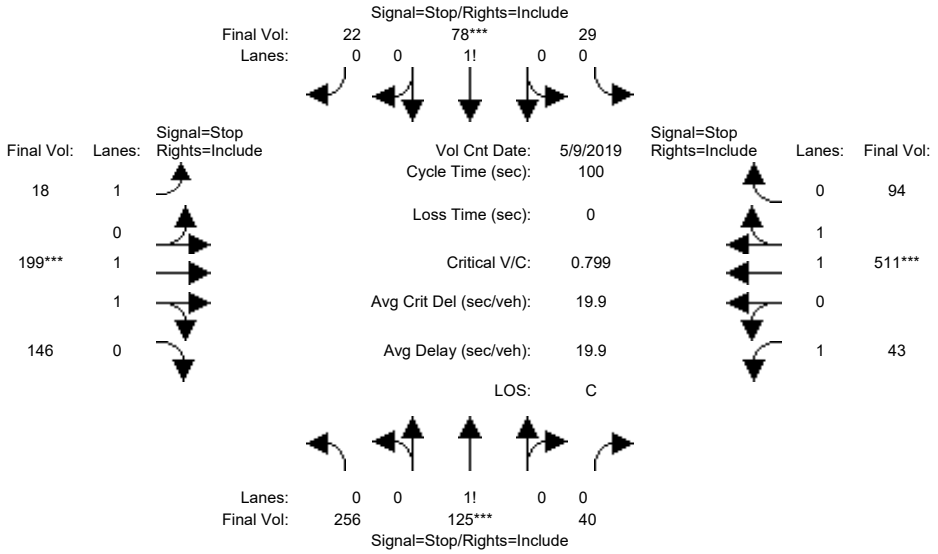
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #21: Clarke Avenue and Bay Road



Street Name:	Clarke Ave						Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	256	125	40	29	78	22	18	199	146	43	511	94
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:	256	125	40	29	78	22	18	199	146	43	511	94
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	125	40	29	78	22	18	199	146	43	511	94
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:	256	125	40	29	78	22	18	199	146	43	511	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	125	40	29	78	22	18	199	146	43	511	94
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:	256	125	40	29	78	22	18	199	146	43	511	94
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.61	0.30	0.09	0.22	0.61	0.17	1.00	1.15	0.85	1.00	1.69	0.31
Final Sat.:	320	156	50	99	266	75	434	541	424	467	859	161
Capacity Analysis Module:												
Vol/Sat:	0.80	0.80	0.80	0.29	0.29	0.29	0.04	0.37	0.34	0.09	0.59	0.58
Crit Moves:		****			****			****			****	
Delay/Veh:	29.9	29.9	29.9	13.1	13.1	13.1	11.0	14.0	12.8	11.0	19.0	18.3
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
AdjDel/Veh:	29.9	29.9	29.9	13.1	13.1	13.1	11.0	14.0	12.8	11.0	19.0	18.3
LOS by Move:	D	D	D	B	B	B	B	B	B	B	C	C
ApproachDel:		29.9			13.1			13.4			18.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		29.9			13.1			13.4			18.3	
LOS by Appr:		D			B			B			C	
AllWayAvgQ:	3.0	3.0	3.0	0.3	0.3	0.3	0.0	0.5	0.5	0.1	1.4	1.3

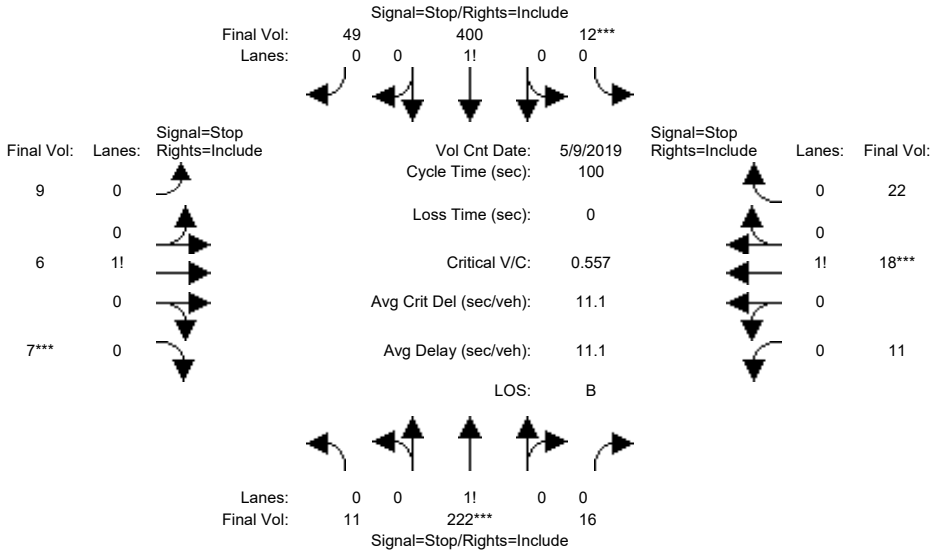
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	11	222	16	12	400	49	9	6	7	11	18	22
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:	11	222	16	12	400	49	9	6	7	11	18	22
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	222	16	12	400	49	9	6	7	11	18	22
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:	11	222	16	12	400	49	9	6	7	11	18	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	222	16	12	400	49	9	6	7	11	18	22
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:	11	222	16	12	400	49	9	6	7	11	18	22
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.90	0.06	0.02	0.87	0.11	0.41	0.27	0.32	0.22	0.35	0.43
Final Sat.:	34	693	50	22	718	88	244	163	190	134	218	267
Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.32	0.56	0.56	0.56	0.04	0.04	0.04	0.08	0.08	0.08
Crit Moves:		****		****					****		****	
Delay/Veh:	9.6	9.6	9.6	12.4	12.4	12.4	8.5	8.5	8.5	8.6	8.6	8.6
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
AdjDel/Veh:	9.6	9.6	9.6	12.4	12.4	12.4	8.5	8.5	8.5	8.6	8.6	8.6
LOS by Move:	A	A	A	B	B	B	A	A	A	A	A	A
ApproachDel:		9.6			12.4			8.5			8.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.6			12.4			8.5			8.6	
LOS by Appr:		A			B			A			A	
AllWayAvgQ:	0.4	0.4	0.4	1.2	1.2	1.2	0.0	0.0	0.0	0.1	0.1	0.1

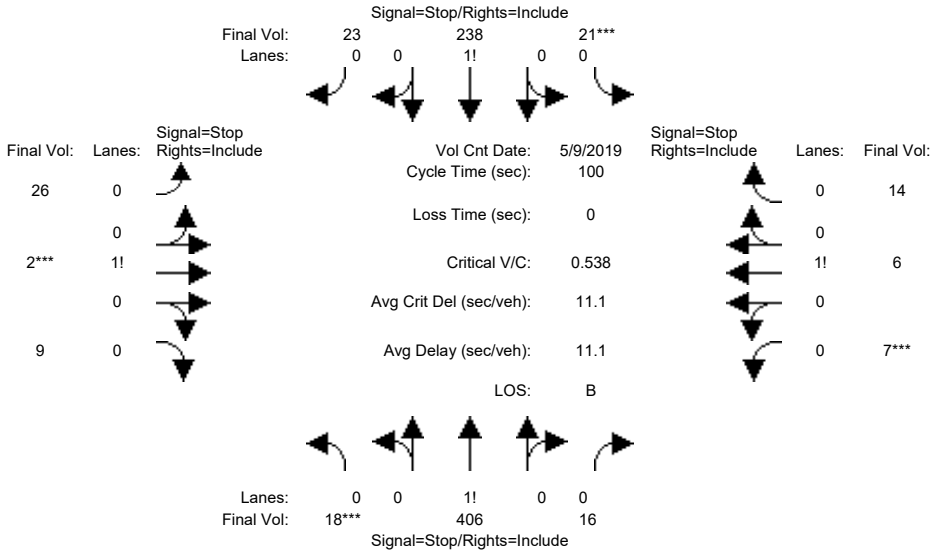
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	18	406	16	21	238	23	26	2	9	7	6	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:	18	406	16	21	238	23	26	2	9	7	6	14
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	406	16	21	238	23	26	2	9	7	6	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:	18	406	16	21	238	23	26	2	9	7	6	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	406	16	21	238	23	26	2	9	7	6	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:	18	406	16	21	238	23	26	2	9	7	6	14
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.92	0.04	0.07	0.85	0.08	0.71	0.05	0.24	0.26	0.22	0.52
Final Sat.:	33	754	30	59	665	64	416	32	144	159	136	317
Capacity Analysis Module:												
Vol/Sat:	0.54	0.54	0.54	0.36	0.36	0.36	0.06	0.06	0.06	0.04	0.04	0.04
Crit Moves:	****			****				****		****		
Delay/Veh:	12.2	12.2	12.2	9.9	9.9	9.9	8.8	8.8	8.8	8.4	8.4	8.4
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
AdjDel/Veh:	12.2	12.2	12.2	9.9	9.9	9.9	8.8	8.8	8.8	8.4	8.4	8.4
LOS by Move:	B	B	B	A	A	A	A	A	A	A	A	A
ApproachDel:	12.2			9.9			8.8			8.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.2			9.9			8.8			8.4		
LOS by Appr:	B			A			A			A		
AllWayAvgQ:	1.1	1.1	1.1	0.5	0.5	0.5	0.1	0.1	0.1	0.0	0.0	0.0

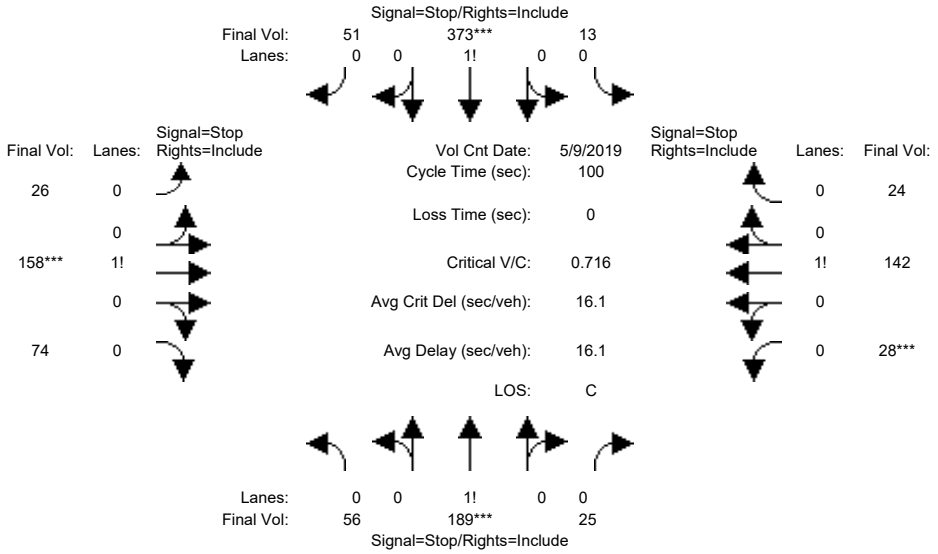
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #23: Clarke Avenue and Runnymede Street



Street Name:	Clarke Avenue						Runnymede Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	56	189	25	13	373	51	26	158	74	28	142	24
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:	56	189	25	13	373	51	26	158	74	28	142	24
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	189	25	13	373	51	26	158	74	28	142	24
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:	56	189	25	13	373	51	26	158	74	28	142	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	189	25	13	373	51	26	158	74	28	142	24
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:	56	189	25	13	373	51	26	158	74	28	142	24
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.70	0.09	0.03	0.85	0.12	0.10	0.61	0.29	0.14	0.74	0.12
Final Sat.:	115	388	51	18	521	71	54	329	154	73	368	62
Capacity Analysis Module:												
Vol/Sat:	0.49	0.49	0.49	0.72	0.72	0.72	0.48	0.48	0.48	0.39	0.39	0.39
Crit Moves:		****			****			****			****	
Delay/Veh:	13.9	13.9	13.9	20.4	20.4	20.4	13.8	13.8	13.8	12.6	12.6	12.6
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
AdjDel/Veh:	13.9	13.9	13.9	20.4	20.4	20.4	13.8	13.8	13.8	12.6	12.6	12.6
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:		13.9			20.4			13.8			12.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.9			20.4			13.8			12.6	
LOS by Appr:		B			C			B			B	
AllWayAvgQ:	0.7	0.7	0.7	2.0	2.0	2.0	0.7	0.7	0.7	0.5	0.5	0.5

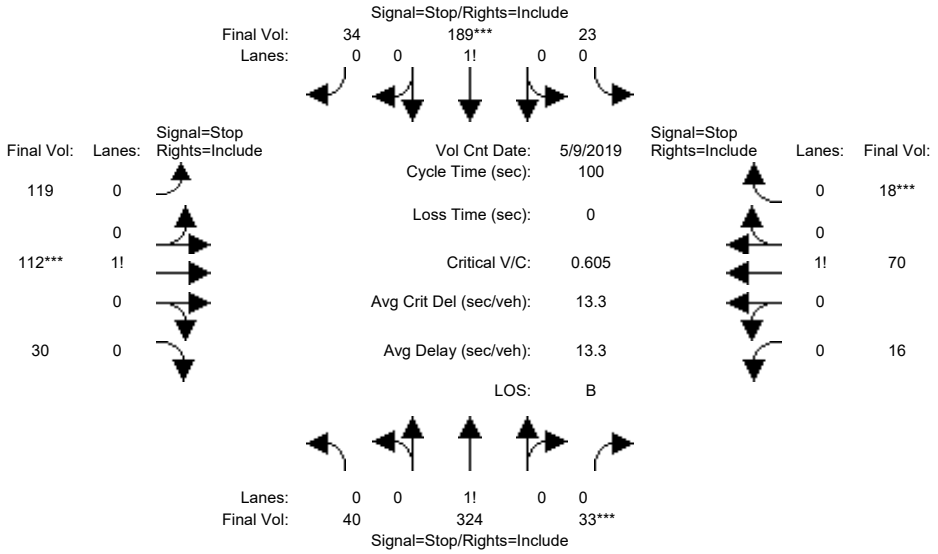
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #23: Clarke Avenue and Runnymede Street



Street Name:	Clarke Avenue						Runnymede Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	40	324	33	23	189	34	119	112	30	16	70	18
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:	40	324	33	23	189	34	119	112	30	16	70	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	324	33	23	189	34	119	112	30	16	70	18
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:	40	324	33	23	189	34	119	112	30	16	70	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	324	33	23	189	34	119	112	30	16	70	18
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:	40	324	33	23	189	34	119	112	30	16	70	18
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.82	0.08	0.09	0.77	0.14	0.46	0.43	0.11	0.15	0.68	0.17
Final Sat.:	66	535	55	58	474	85	265	250	67	81	355	91
Capacity Analysis Module:												
Vol/Sat:	0.61	0.61	0.61	0.40	0.40	0.40	0.45	0.45	0.45	0.20	0.20	0.20
Crit Moves:			****			****			****			****
Delay/Veh:	15.4	15.4	15.4	11.7	11.7	11.7	12.8	12.8	12.8	10.2	10.2	10.2
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
AdjDel/Veh:	15.4	15.4	15.4	11.7	11.7	11.7	12.8	12.8	12.8	10.2	10.2	10.2
LOS by Move:	C	C	C	B	B	B	B	B	B	B	B	B
ApproachDel:		15.4			11.7			12.8			10.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.4			11.7			12.8			10.2	
LOS by Appr:		C			B			B			B	
AllWayAvgQ:	1.3	1.3	1.3	0.6	0.6	0.6	0.7	0.7	0.7	0.2	0.2	0.2

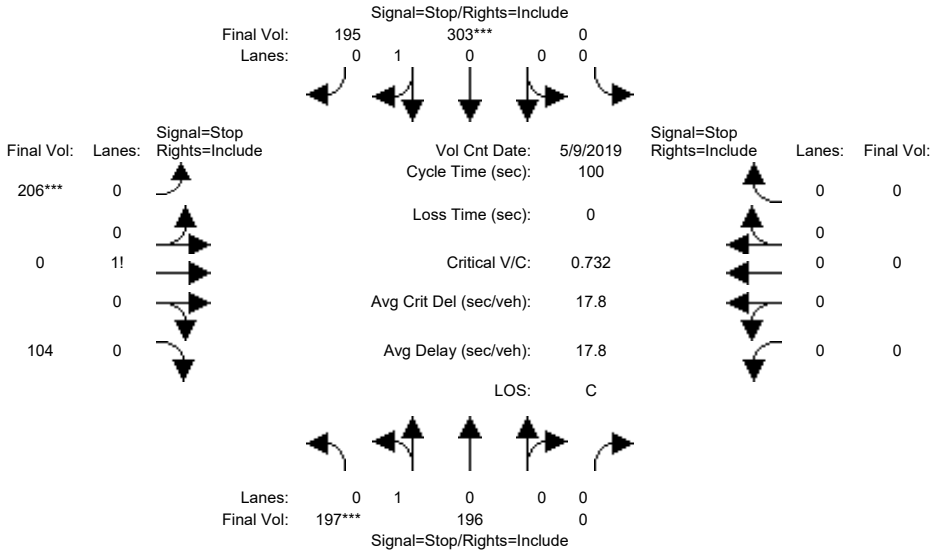
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #24: Clarke Avenue and Donohoe Street



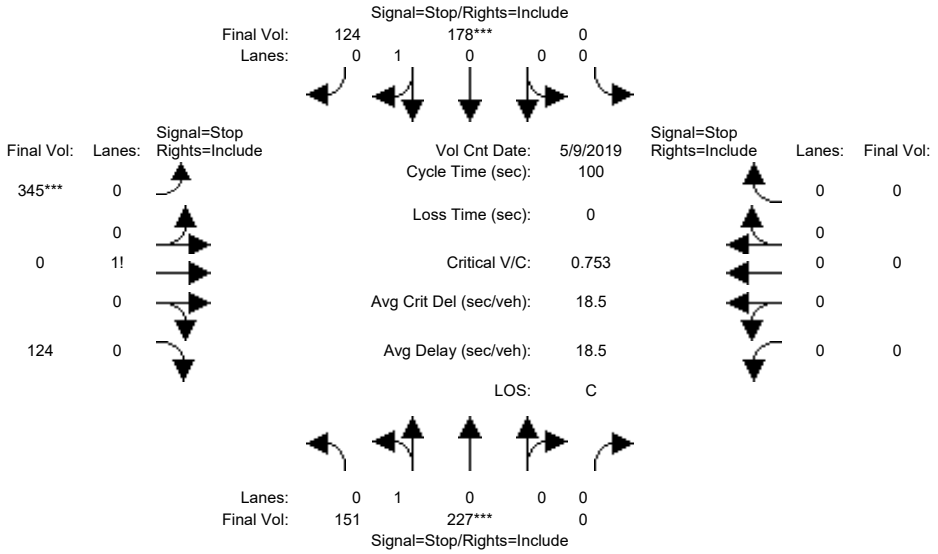

```
Street Name:          Clarke Avenue                 Donohoe Street
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 9 May 2019 <<
Base Vol:     197  196     0     0  303   195   206    0   104     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:  197  196     0     0  303   195   206    0   104     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  197  196     0     0  303   195   206    0   104     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:   197  196     0     0  303   195   206    0   104     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  197  196     0     0  303   195   206    0   104     0    0     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:  197  196     0     0  303   195   206    0   104     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.50 0.50  0.00  0.00 0.61  0.39  0.66 0.00  0.34  0.00 0.00  0.00
Final Sat.:   312  311     0     0  414   266   382    0   193     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.63 0.63  xxxx  xxxx 0.73  0.73  0.54 xxxx  0.54  xxxx xxxx  xxxx
Crit Moves:  ****                  ****        ****
Delay/Veh:   17.1 17.1   0.0   0.0 20.2  20.2  14.8  0.0  14.8   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
AdjDel/Veh:  17.1 17.1   0.0   0.0 20.2  20.2  14.8  0.0  14.8   0.0  0.0   0.0
LOS by Move:    C    C     *     *    C     C     B    *     B     *    *     *
ApproachDel:       17.1             20.2             14.8           xxxxxx
Delay Adj:         1.00             1.00             1.00            xxxxx
ApprAdjDel:        17.1             20.2             14.8           xxxxxx
LOS by Appr:          C                C                B                *
AllWayAvgQ:   1.5  1.5   1.5   2.3  2.3   2.3   0.9  0.9   0.9   0.0  0.0   0.0
Note: Queue reported is the number of cars per lane.
```


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KIPP Charter High School TIA
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City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #24: Clarke Avenue and Donohoe Street



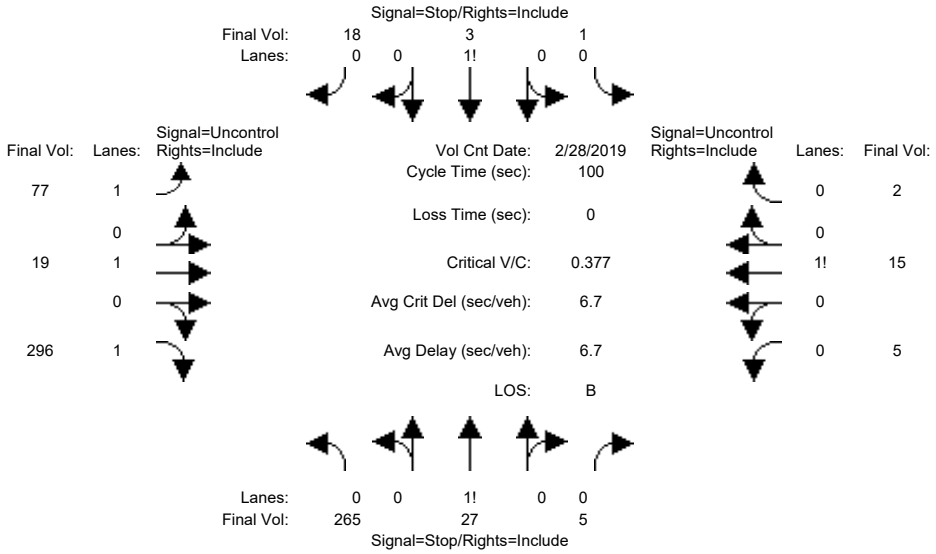

```
Street Name:          Clarke Avenue                 Donohoe Street
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 9 May 2019 <<
Base Vol:     151   227     0     0   178   124   345     0   124     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:  151   227     0     0   178   124   345     0   124     0     0     0
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  151   227     0     0   178   124   345     0   124     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:   151   227     0     0   178   124   345     0   124     0     0     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  151   227     0     0   178   124   345     0   124     0     0     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:  151   227     0     0   178   124   345     0   124     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Lanes:       0.40  0.60  0.00  0.00  0.59  0.41  0.74  0.00  0.26  0.00  0.00  0.00
Final Sat.:   239   359     0     0   358   250   458     0   165     0     0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.63  0.63  xxxx  xxxx  0.50  0.50  0.75  xxxx  0.75  xxxx  xxxx  xxxx
Crit Moves:         ****              ****        ****
Delay/Veh:   17.5  17.5   0.0   0.0  13.6  13.6  22.4   0.0  22.4   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
AdjDel/Veh:  17.5  17.5   0.0   0.0  13.6  13.6  22.4   0.0  22.4   0.0   0.0   0.0
LOS by Move:    C     C     *     *     B     B     C     *     C     *     *     *
ApproachDel:         17.5              13.6              22.4            xxxxxx
Delay Adj:           1.00              1.00              1.00             xxxxx
ApprAdjDel:          17.5              13.6              22.4            xxxxxx
LOS by Appr:            C                 B                 C                 *
AllWayAvgQ:   1.4   1.4   1.4   0.8   0.8   0.8   2.4   2.4   2.4   0.0   0.0   0.0
Note: Queue reported is the number of cars per lane.
```


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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #27: Pulgas Avenue and Bay Road



Street Name:	Pulgas Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	265	27	5	1	3	18	77	19	296	5	15	2
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:	265	27	5	1	3	18	77	19	296	5	15	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	265	27	5	1	3	18	77	19	296	5	15	2
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:	265	27	5	1	3	18	77	19	296	5	15	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	265	27	5	1	3	18	77	19	296	5	15	2
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	210	200	19	363	495	16	17	xxxx	xxxxx	315	xxxx	xxxxx
Potent Cap.:	748	696	1059	593	476	1063	1600	xxxx	xxxxx	1245	xxxx	xxxxx
Move Cap.:	702	660	1059	549	451	1063	1600	xxxx	xxxxx	1245	xxxx	xxxxx
Volume/Cap:	0.38	0.04	0.00	0.00	0.01	0.02	0.05	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	702	xxxxx	xxxx	866	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	2.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.8	xxxxx	xxxxx	9.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	A	*	*	*	*	*	*	*
ApproachDel:		13.8			9.3		xxxxxx			xxxxxx		
ApproachLOS:		B			A		*			*		

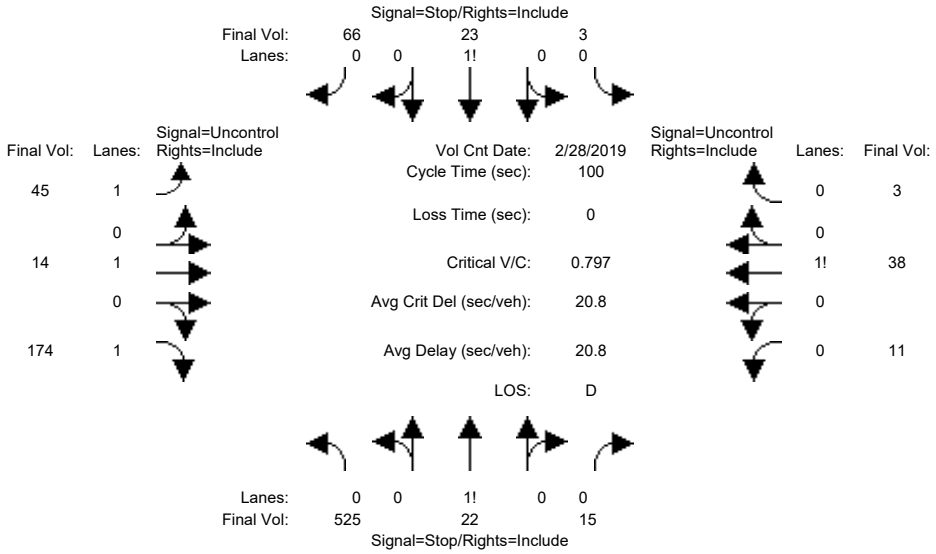
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

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

Intersection #27: Pulgas Avenue and Bay Road



Street Name:	Pulgas Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	525	22	15	3	23	66	45	14	174	11	38	3
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:	525	22	15	3	23	66	45	14	174	11	38	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	525	22	15	3	23	66	45	14	174	11	38	3
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:	525	22	15	3	23	66	45	14	174	11	38	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	525	22	15	3	23	66	45	14	174	11	38	3
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	210	167	14	271	340	40	41	xxxx	xxxxx	188	xxxx	xxxxx
Potent Cap.:	747	726	1066	682	582	1032	1568	xxxx	xxxxx	1386	xxxx	xxxxx
Move Cap.:	659	699	1066	638	561	1032	1568	xxxx	xxxxx	1386	xxxx	xxxxx
Volume/Cap:	0.80	0.03	0.01	0.00	0.04	0.06	0.03	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	667	xxxxx	xxxx	839	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	9.4	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	32.4	xxxxx	xxxxx	9.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	A	*	*	*	*	*	*	*
ApproachDel:		32.4			9.8		xxxxxx			xxxxxx		
ApproachLOS:		D			A		*			*		

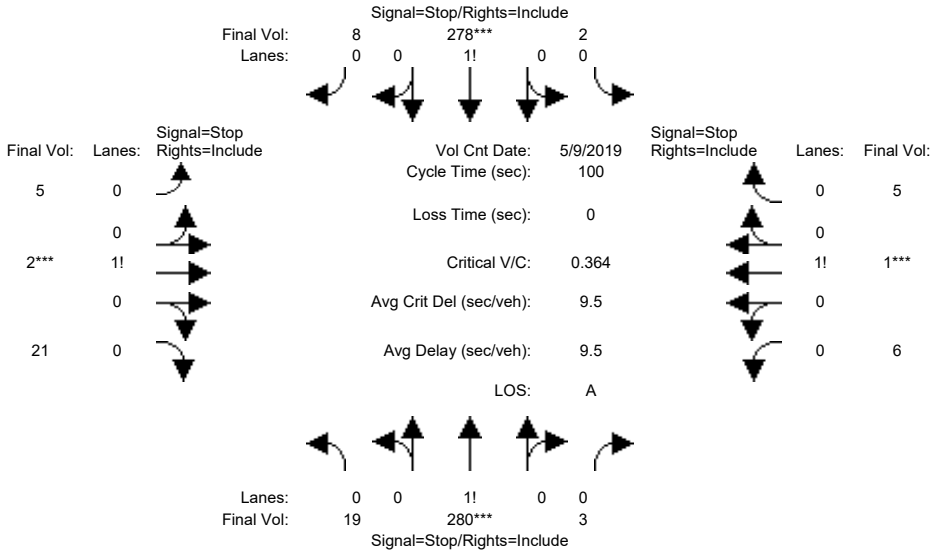
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
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City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	19	280	3	2	278	8	5	2	21	6	1	5
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:	19	280	3	2	278	8	5	2	21	6	1	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	280	3	2	278	8	5	2	21	6	1	5
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:	19	280	3	2	278	8	5	2	21	6	1	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	280	3	2	278	8	5	2	21	6	1	5
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:	19	280	3	2	278	8	5	2	21	6	1	5
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.93	0.01	0.01	0.96	0.03	0.18	0.07	0.75	0.50	0.08	0.42
Final Sat.:	52	769	8	6	802	23	123	49	515	324	54	270
Capacity Analysis Module:												
Vol/Sat:	0.36	0.36	0.36	0.35	0.35	0.35	0.04	0.04	0.04	0.02	0.02	0.02
Crit Moves:		****			****			****			****	
Delay/Veh:	9.7	9.7	9.7	9.5	9.5	9.5	7.9	7.9	7.9	8.1	8.1	8.1
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
AdjDel/Veh:	9.7	9.7	9.7	9.5	9.5	9.5	7.9	7.9	7.9	8.1	8.1	8.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		9.7			9.5			7.9			8.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.7			9.5			7.9			8.1	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0

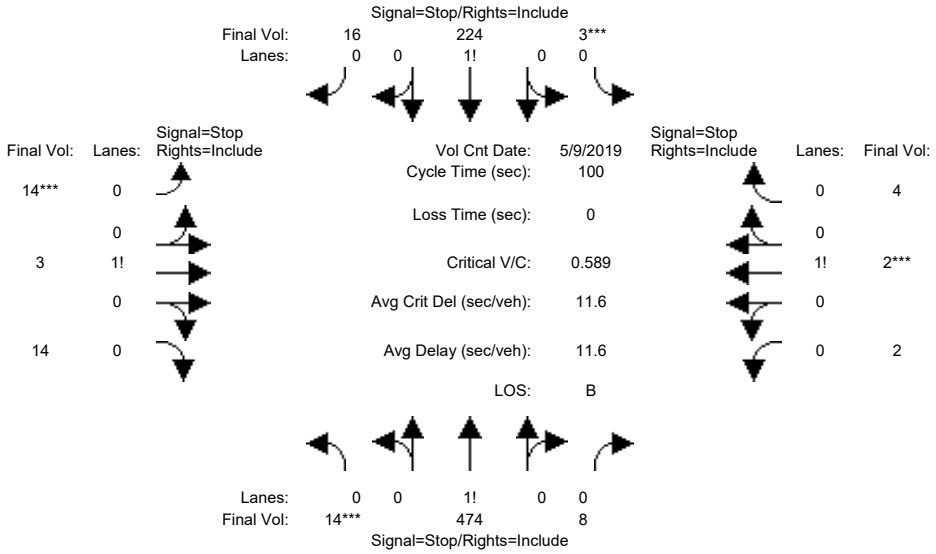
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	14	474	8	3	224	16	14	3	14	2	2	4
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:	14	474	8	3	224	16	14	3	14	2	2	4
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	474	8	3	224	16	14	3	14	2	2	4
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:	14	474	8	3	224	16	14	3	14	2	2	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	474	8	3	224	16	14	3	14	2	2	4
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:	14	474	8	3	224	16	14	3	14	2	2	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.95	0.02	0.01	0.92	0.07	0.45	0.10	0.45	0.25	0.25	0.50
Final Sat.:	24	804	14	10	733	52	276	59	276	152	152	304
Capacity Analysis Module:												
Vol/Sat:	0.59	0.59	0.59	0.31	0.31	0.31	0.05	0.05	0.05	0.01	0.01	0.01
Crit Moves:	****			****			****				****	
Delay/Veh:	13.0	13.0	13.0	9.3	9.3	9.3	8.5	8.5	8.5	8.3	8.3	8.3
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
AdjDel/Veh:	13.0	13.0	13.0	9.3	9.3	9.3	8.5	8.5	8.5	8.3	8.3	8.3
LOS by Move:	B	B	B	A	A	A	A	A	A	A	A	A
ApproachDel:	13.0			9.3			8.5			8.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.0			9.3			8.5			8.3		
LOS by Appr:	B			A			A			A		
AllWayAvgQ:	1.4	1.4	1.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0

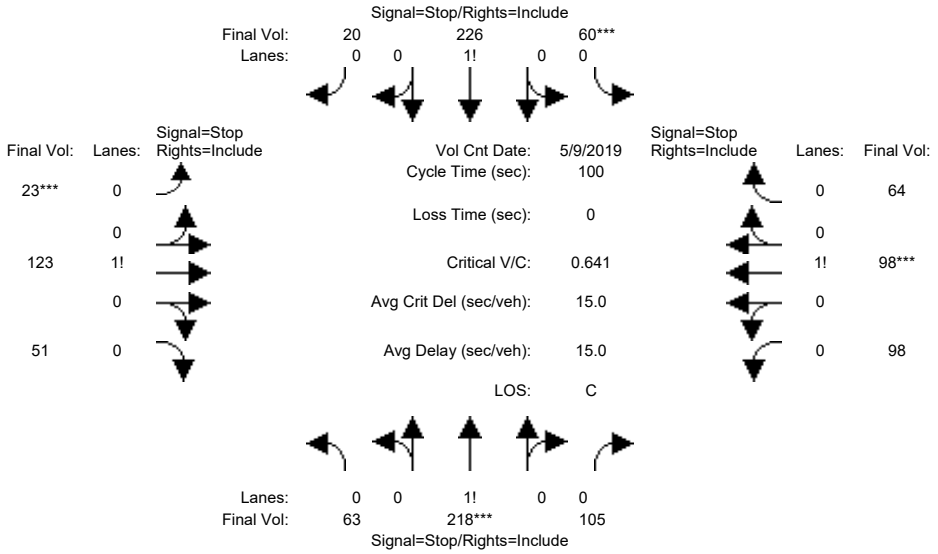
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #29: Pulgas Avenue and Runnymead Street



Street Name:	Pulgas Avenue						Runnymead Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	63	218	105	60	226	20	23	123	51	98	98	64
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:	63	218	105	60	226	20	23	123	51	98	98	64
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	218	105	60	226	20	23	123	51	98	98	64
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:	63	218	105	60	226	20	23	123	51	98	98	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	218	105	60	226	20	23	123	51	98	98	64
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:	63	218	105	60	226	20	23	123	51	98	98	64
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.57	0.27	0.20	0.74	0.06	0.12	0.62	0.26	0.38	0.38	0.24
Final Sat.:	98	340	164	111	419	37	60	320	133	202	202	132
Capacity Analysis Module:												
Vol/Sat:	0.64	0.64	0.64	0.54	0.54	0.54	0.38	0.38	0.38	0.49	0.49	0.49
Crit Moves:		****			****			****			****	
Delay/Veh:	17.2	17.2	17.2	14.9	14.9	14.9	12.4	12.4	12.4	13.9	13.9	13.9
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
AdjDel/Veh:	17.2	17.2	17.2	14.9	14.9	14.9	12.4	12.4	12.4	13.9	13.9	13.9
LOS by Move:	C	C	C	B	B	B	B	B	B	B	B	B
ApproachDel:		17.2			14.9			12.4			13.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		17.2			14.9			12.4			13.9	
LOS by Appr:		C			B			B			B	
AllWayAvgQ:	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.5	0.5	0.7	0.7	0.7

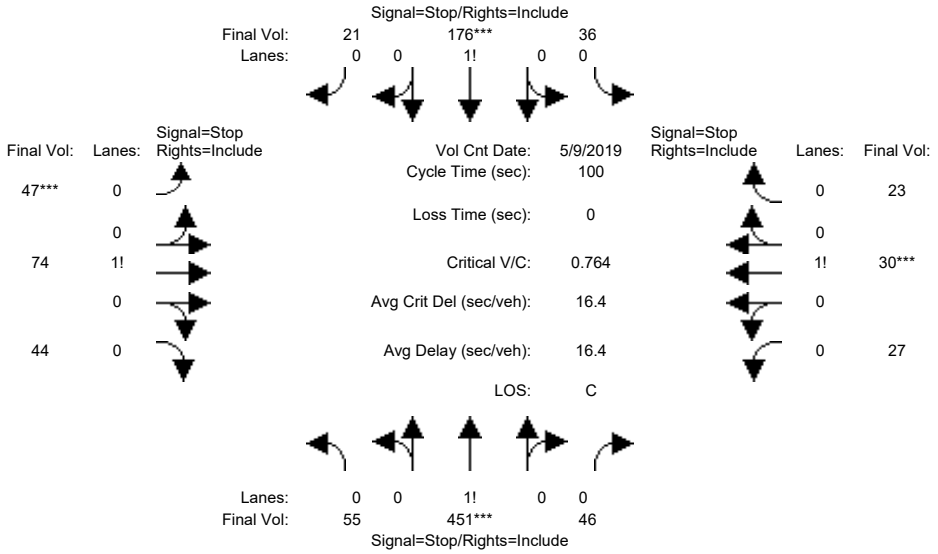
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #29: Pulgas Avenue and Runnymead Street



Street Name:	Pulgas Avenue						Runnymead Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	55	451	46	36	176	21	47	74	44	27	30	23
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:	55	451	46	36	176	21	47	74	44	27	30	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	451	46	36	176	21	47	74	44	27	30	23
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:	55	451	46	36	176	21	47	74	44	27	30	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	451	46	36	176	21	47	74	44	27	30	23
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:	55	451	46	36	176	21	47	74	44	27	30	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.82	0.08	0.15	0.76	0.09	0.28	0.45	0.27	0.34	0.37	0.29
Final Sat.:	72	590	60	100	487	58	159	250	149	179	199	152
Capacity Analysis Module:												
Vol/Sat:	0.76	0.76	0.76	0.36	0.36	0.36	0.30	0.30	0.30	0.15	0.15	0.15
Crit Moves:		****			****			****			****	
Delay/Veh:	21.2	21.2	21.2	11.0	11.0	11.0	10.9	10.9	10.9	9.9	9.9	9.9
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
AdjDel/Veh:	21.2	21.2	21.2	11.0	11.0	11.0	10.9	10.9	10.9	9.9	9.9	9.9
LOS by Move:	C	C	C	B	B	B	B	B	B	A	A	A
ApproachDel:		21.2			11.0			10.9			9.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		21.2			11.0			10.9			9.9	
LOS by Appr:		C			B			B			A	
AllWayAvgQ:	2.7	2.7	2.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1

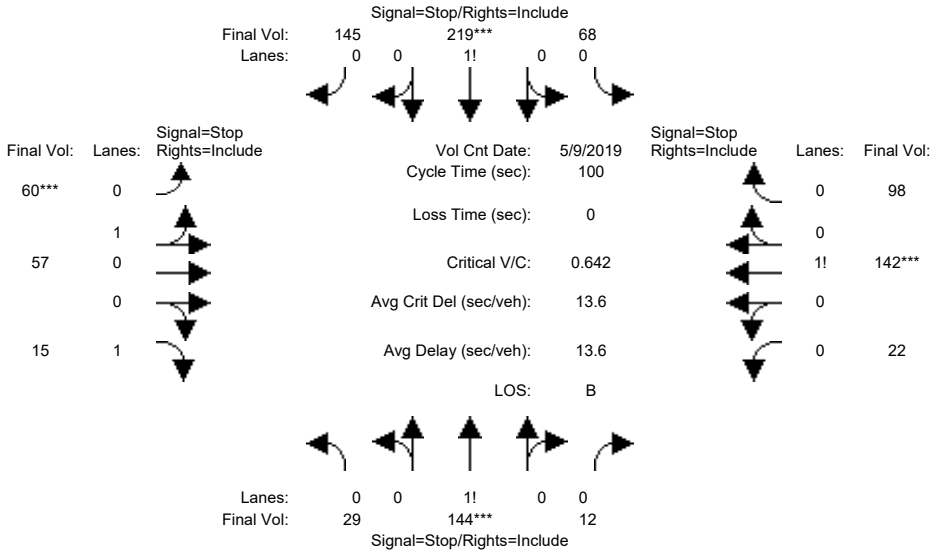
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	29	144	12	68	219	145	60	57	15	22	142	98
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:	29	144	12	68	219	145	60	57	15	22	142	98
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	144	12	68	219	145	60	57	15	22	142	98
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:	29	144	12	68	219	145	60	57	15	22	142	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	144	12	68	219	145	60	57	15	22	142	98
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:	29	144	12	68	219	145	60	57	15	22	142	98
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.78	0.06	0.16	0.51	0.33	0.51	0.49	1.00	0.08	0.55	0.37
Final Sat.:	92	456	38	106	341	226	248	236	556	50	322	222
Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.32	0.64	0.64	0.64	0.24	0.24	0.03	0.44	0.44	0.44
Crit Moves:		****			****			****			****	
Delay/Veh:	11.0	11.0	11.0	16.2	16.2	16.2	11.3	11.3	8.6	12.5	12.5	12.5
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
AdjDel/Veh:	11.0	11.0	11.0	16.2	16.2	16.2	11.3	11.3	8.6	12.5	12.5	12.5
LOS by Move:	B	B	B	C	C	C	B	B	A	B	B	B
ApproachDel:		11.0			16.2			11.0			12.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.0			16.2			11.0			12.5	
LOS by Appr:		B			C			B			B	
AllWayAvgQ:	0.4	0.4	0.4	1.5	1.5	1.5	0.3	0.3	0.0	0.6	0.6	0.6

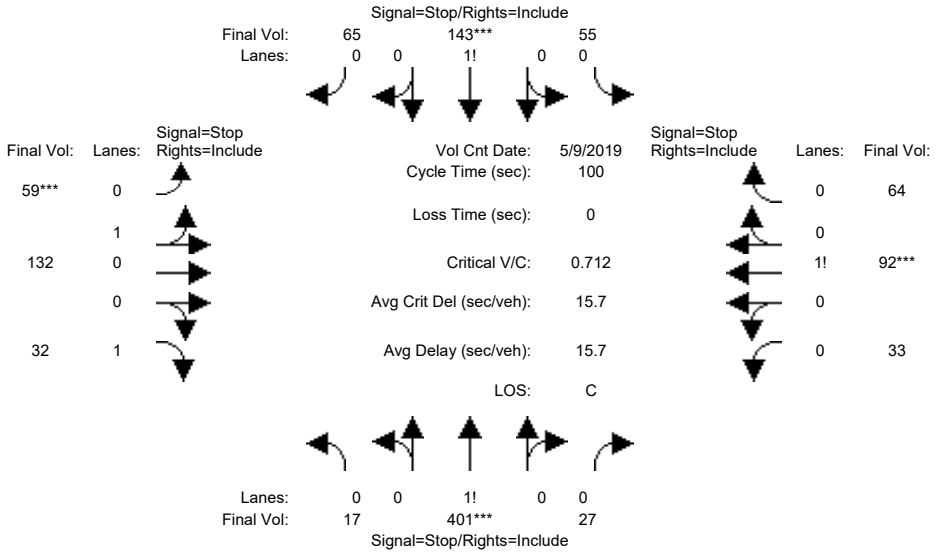
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	17	401	27	55	143	65	59	132	32	33	92	64
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:	17	401	27	55	143	65	59	132	32	33	92	64
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	401	27	55	143	65	59	132	32	33	92	64
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:	17	401	27	55	143	65	59	132	32	33	92	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	401	27	55	143	65	59	132	32	33	92	64
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:	17	401	27	55	143	65	59	132	32	33	92	64
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.90	0.06	0.21	0.54	0.25	0.31	0.69	1.00	0.17	0.49	0.34
Final Sat.:	24	563	38	121	314	143	149	333	544	91	253	176
Capacity Analysis Module:												
Vol/Sat:	0.71	0.71	0.71	0.45	0.45	0.45	0.40	0.40	0.06	0.36	0.36	0.36
Crit Moves:		****			****			****			****	
Delay/Veh:	20.2	20.2	20.2	13.1	13.1	13.1	13.5	13.5	9.1	12.2	12.2	12.2
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
AdjDel/Veh:	20.2	20.2	20.2	13.1	13.1	13.1	13.5	13.5	9.1	12.2	12.2	12.2
LOS by Move:	C	C	C	B	B	B	B	B	A	B	B	B
ApproachDel:		20.2			13.1			12.9			12.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		20.2			13.1			12.9			12.2	
LOS by Appr:		C			B			B			B	
AllWayAvgQ:	2.0	2.0	2.0	0.7	0.7	0.7	0.5	0.5	0.1	0.4	0.4	0.4

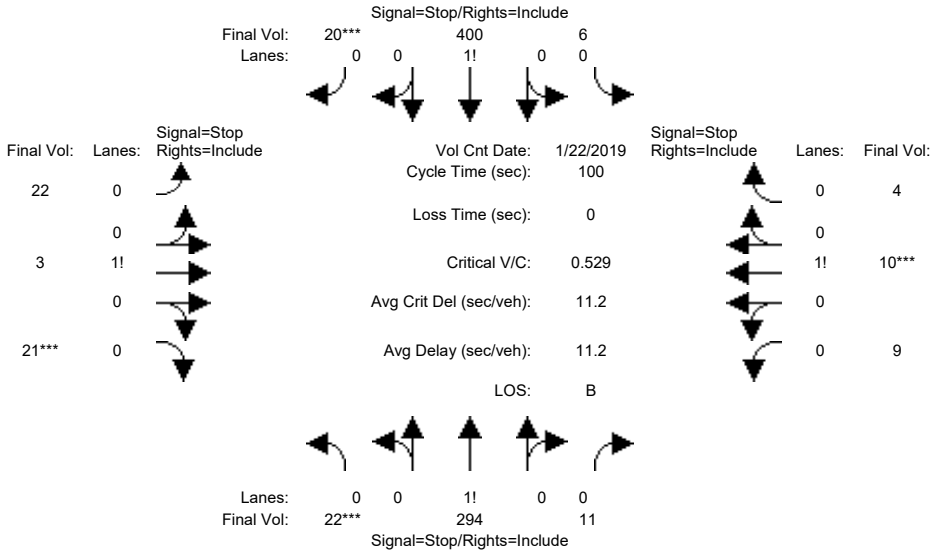
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 22 Jan 2019 << 07:45 AM - 08:45 AM												
Base Vol:	22	294	11	6	400	20	22	3	21	9	10	4
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:	22	294	11	6	400	20	22	3	21	9	10	4
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	294	11	6	400	20	22	3	21	9	10	4
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:	22	294	11	6	400	20	22	3	21	9	10	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	294	11	6	400	20	22	3	21	9	10	4
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:	22	294	11	6	400	20	22	3	21	9	10	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.90	0.03	0.01	0.94	0.05	0.48	0.06	0.46	0.39	0.44	0.17
Final Sat.:	53	704	26	11	756	38	287	39	274	225	250	100
Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.53	0.53	0.53	0.08	0.08	0.08	0.04	0.04	0.04
Crit Moves:	****					****			****		****	
Delay/Veh:	10.6	10.6	10.6	12.1	12.1	12.1	8.7	8.7	8.7	8.7	8.7	8.7
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
AdjDel/Veh:	10.6	10.6	10.6	12.1	12.1	12.1	8.7	8.7	8.7	8.7	8.7	8.7
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:	10.6			12.1			8.7			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.6			12.1			8.7			8.7		
LOS by Appr:	B			B			A			A		
AllWayAvgQ:	0.7	0.7	0.7	1.0	1.0	1.0	0.1	0.1	0.1	0.0	0.0	0.0

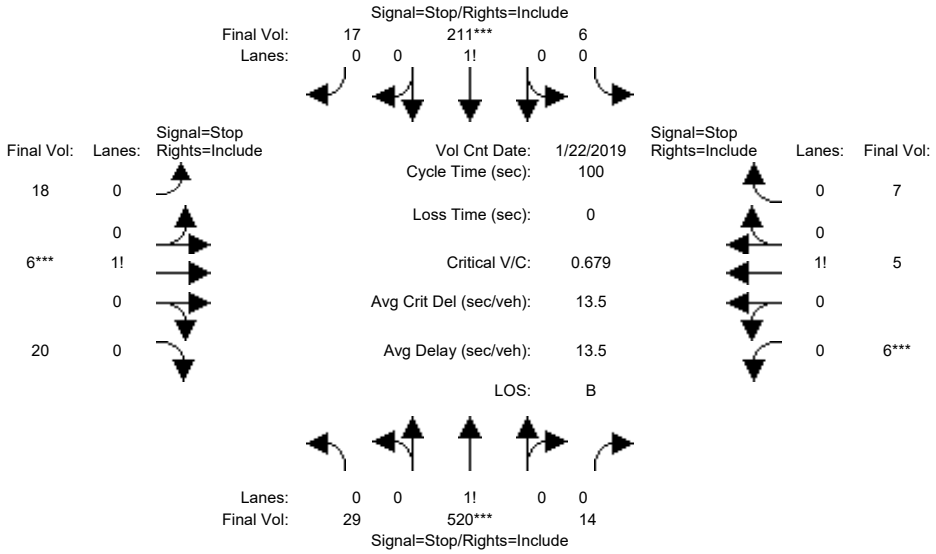
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 22 Jan 2019 << 05:15 PM - 06:15 PM												
Base Vol:	29	520	14	6	211	17	18	6	20	6	5	7
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:	29	520	14	6	211	17	18	6	20	6	5	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	520	14	6	211	17	18	6	20	6	5	7
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:	29	520	14	6	211	17	18	6	20	6	5	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	520	14	6	211	17	18	6	20	6	5	7
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:	29	520	14	6	211	17	18	6	20	6	5	7
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.93	0.02	0.03	0.90	0.07	0.41	0.14	0.45	0.33	0.28	0.39
Final Sat.:	43	765	21	20	690	56	242	81	269	193	160	225
Capacity Analysis Module:												
Vol/Sat:	0.68	0.68	0.68	0.31	0.31	0.31	0.07	0.07	0.07	0.03	0.03	0.03
Crit Moves:		****			****			****			****	
Delay/Veh:	15.7	15.7	15.7	9.5	9.5	9.5	8.8	8.8	8.8	8.6	8.6	8.6
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
AdjDel/Veh:	15.7	15.7	15.7	9.5	9.5	9.5	8.8	8.8	8.8	8.6	8.6	8.6
LOS by Move:	C	C	C	A	A	A	A	A	A	A	A	A
ApproachDel:		15.7			9.5			8.8			8.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.7			9.5			8.8			8.6	
LOS by Appr:		C			A			A			A	
AllWayAvgQ:	1.9	1.9	1.9	0.4	0.4	0.4	0.1	0.1	0.1	0.0	0.0	0.0

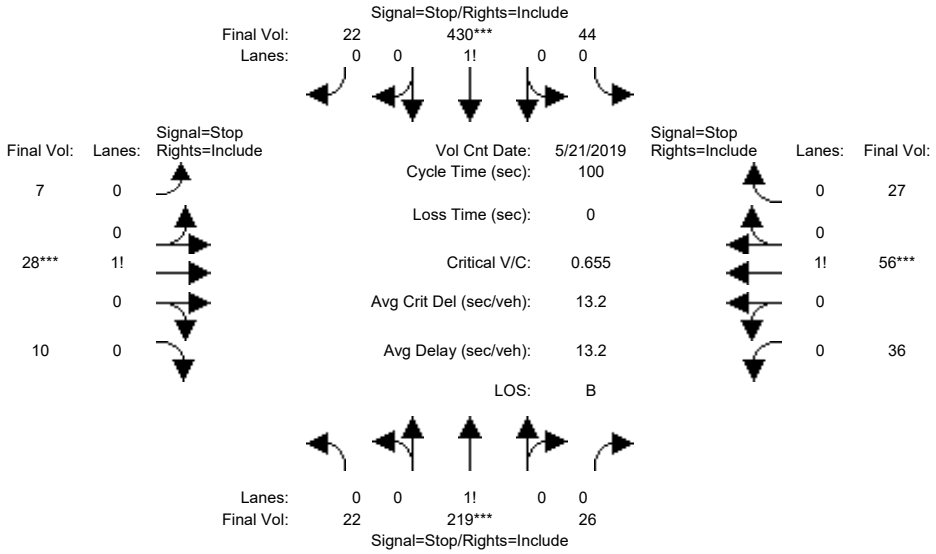
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 21 May 2019 << 07:30 AM - 08:30 AM												
Base Vol:	22	219	26	44	430	22	7	28	10	36	56	27
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:	22	219	26	44	430	22	7	28	10	36	56	27
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	219	26	44	430	22	7	28	10	36	56	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	22	219	26	44	430	22	7	28	10	36	56	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	219	26	44	430	22	7	28	10	36	56	27
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:	22	219	26	44	430	22	7	28	10	36	56	27
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	0.82	0.10	0.09	0.87	0.04	0.16	0.62	0.22	0.30	0.47	0.23
Final Sat.:	58	582	69	67	656	34	85	340	121	175	272	131
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.38	0.66	0.66	0.66	0.08	0.08	0.08	0.21	0.21	0.21
Crit Moves:		****			****			****			****	
Delay/Veh:	10.6	10.6	10.6	15.7	15.7	15.7	9.2	9.2	9.2	9.9	9.9	9.9
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
AdjDel/Veh:	10.6	10.6	10.6	15.7	15.7	15.7	9.2	9.2	9.2	9.9	9.9	9.9
LOS by Move:	B	B	B	C	C	C	A	A	A	A	A	A
ApproachDel:		10.6			15.7			9.2			9.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.6			15.7			9.2			9.9	
LOS by Appr:		B			C			A			A	
AllWayAvgQ:	0.5	0.5	0.5	1.7	1.7	1.7	0.1	0.1	0.1	0.2	0.2	0.2

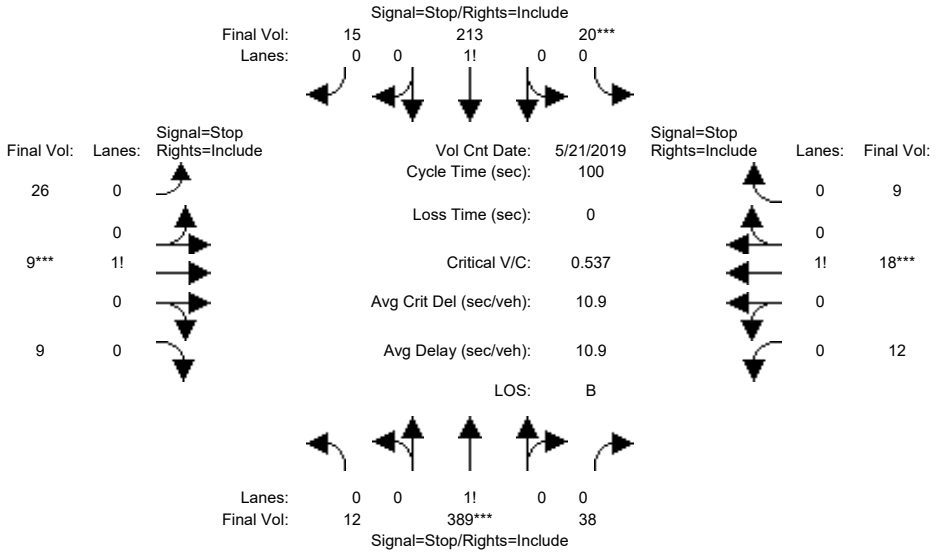
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing PM

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 21 May 2019 <<												
Base Vol:	12	389	38	20	213	15	26	9	9	12	18	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:	12	389	38	20	213	15	26	9	9	12	18	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	389	38	20	213	15	26	9	9	12	18	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:	12	389	38	20	213	15	26	9	9	12	18	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	389	38	20	213	15	26	9	9	12	18	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:	12	389	38	20	213	15	26	9	9	12	18	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.88	0.09	0.08	0.86	0.06	0.60	0.20	0.20	0.31	0.46	0.23
Final Sat.:	22	724	71	62	663	47	352	122	122	185	278	139
Capacity Analysis Module:												
Vol/Sat:	0.54	0.54	0.54	0.32	0.32	0.32	0.07	0.07	0.07	0.06	0.06	0.06
Crit Moves:		****		****				****			****	
Delay/Veh:	12.1	12.1	12.1	9.6	9.6	9.6	8.8	8.8	8.8	8.7	8.7	8.7
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
AdjDel/Veh:	12.1	12.1	12.1	9.6	9.6	9.6	8.8	8.8	8.8	8.7	8.7	8.7
LOS by Move:	B	B	B	A	A	A	A	A	A	A	A	A
ApproachDel:		12.1			9.6			8.8			8.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		12.1			9.6			8.8			8.7	
LOS by Appr:		B			A			A			A	
AllWayAvgQ:	1.1	1.1	1.1	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1

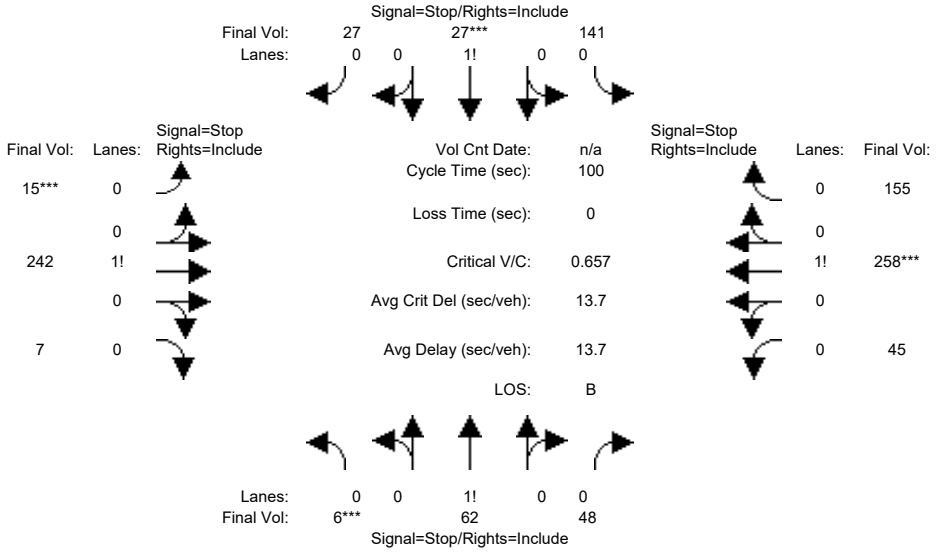
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	6	62	39	138	27	27	15	229	7	37	248	152
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:	6	62	39	138	27	27	15	229	7	37	248	152
Added Vol:	0	0	9	3	0	0	0	13	0	8	10	3
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	62	48	141	27	27	15	242	7	45	258	155
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:	6	62	48	141	27	27	15	242	7	45	258	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	62	48	141	27	27	15	242	7	45	258	155
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:	6	62	48	141	27	27	15	242	7	45	258	155
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.54	0.41	0.72	0.14	0.14	0.06	0.92	0.02	0.10	0.56	0.34
Final Sat.:	28	288	223	399	76	76	36	574	17	69	393	236
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.21	0.35	0.35	0.35	0.42	0.42	0.42	0.66	0.66	0.66
Crit Moves:	****				****		****				****	
Delay/Veh:	10.1	10.1	10.1	11.7	11.7	11.7	12.0	12.0	12.0	16.4	16.4	16.4
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
AdjDel/Veh:	10.1	10.1	10.1	11.7	11.7	11.7	12.0	12.0	12.0	16.4	16.4	16.4
LOS by Move:	B	B	B	B	B	B	B	B	B	C	C	C
ApproachDel:	10.1			11.7			12.0			16.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			11.7			12.0			16.4		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.2	0.2	0.2	0.4	0.4	0.4	0.6	0.6	0.6	1.6	1.6	1.6

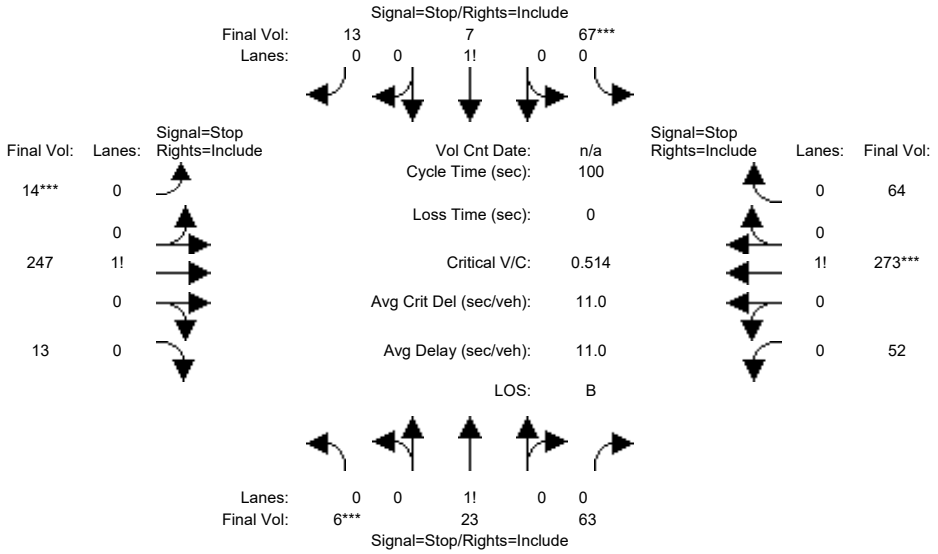
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	6	23	59	66	7	13	14	242	13	47	267	62
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:	6	23	59	66	7	13	14	242	13	47	267	62
Added Vol:	0	0	4	1	0	0	0	5	0	5	6	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	23	63	67	7	13	14	247	13	52	273	64
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:	6	23	63	67	7	13	14	247	13	52	273	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	23	63	67	7	13	14	247	13	52	273	64
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:	6	23	63	67	7	13	14	247	13	52	273	64
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.25	0.68	0.77	0.08	0.15	0.05	0.90	0.05	0.13	0.71	0.16
Final Sat.:	41	156	427	445	46	86	37	651	34	101	532	125
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.15	0.15	0.15	0.38	0.38	0.38	0.51	0.51	0.51
Crit Moves:	****			****			****				****	
Delay/Veh:	8.9	8.9	8.9	9.5	9.5	9.5	10.5	10.5	10.5	12.2	12.2	12.2
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
AdjDel/Veh:	8.9	8.9	8.9	9.5	9.5	9.5	10.5	10.5	10.5	12.2	12.2	12.2
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
ApproachDel:	8.9			9.5			10.5			12.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.9			9.5			10.5			12.2		
LOS by Appr:	A			A			B			B		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.6	0.6	1.0	1.0	1.0

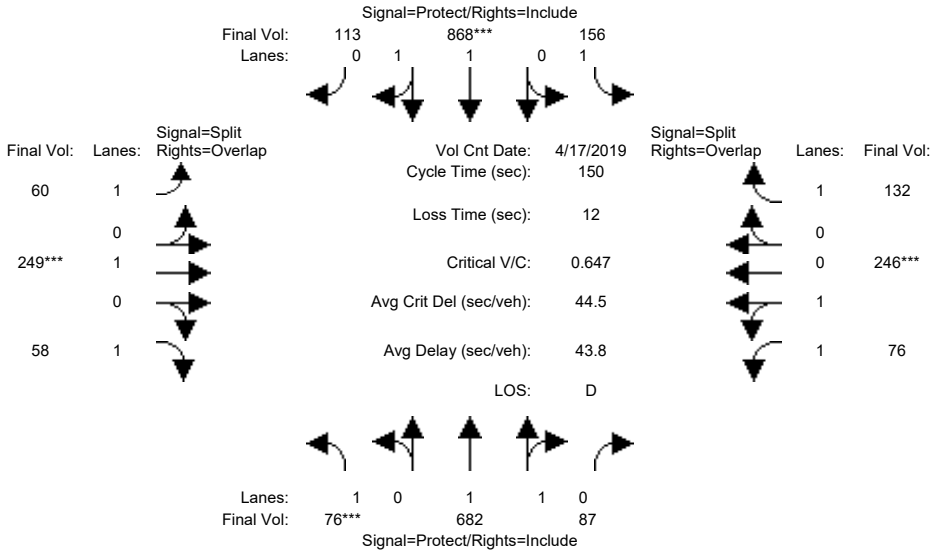
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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	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: >> Count Date: 17 Apr 2019 <<												
Base Vol:	76	677	87	154	862	113	60	219	58	76	221	130
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	677	87	154	862	113	60	219	58	76	221	130
Added Vol:	0	5	0	2	6	0	0	30	0	0	25	2
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	682	87	156	868	113	60	249	58	76	246	132
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	682	87	156	868	113	60	249	58	76	246	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	682	87	156	868	113	60	249	58	76	246	132
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	682	87	156	868	113	60	249	58	76	246	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.91	0.92	0.91	0.91	0.93	0.98	0.83	0.97	0.97	0.83
Lanes:	1.00	1.77	0.23	1.00	1.77	0.23	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1753	3056	390	1753	3049	397	1769	1862	1583	1840	1840	1583
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.22	0.09	0.28	0.28	0.03	0.13	0.04	0.04	0.13	0.08
Crit Moves:	****				****			****			****	
Green/Cycle:	0.07	0.36	0.36	0.14	0.44	0.44	0.21	0.21	0.27	0.21	0.21	0.35
Volume/Cap:	0.65	0.62	0.62	0.62	0.65	0.65	0.16	0.65	0.13	0.20	0.65	0.24
Delay/Veh:	80.2	40.2	40.2	64.8	33.9	33.9	49.1	58.3	41.2	49.3	57.5	34.7
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:	80.2	40.2	40.2	64.8	33.9	33.9	49.1	58.3	41.2	49.3	57.5	34.7
LOS by Move:	F	D	D	E	C	C	D	E	D	D	E	C
HCM2kAvgQ:	5	15	15	8	19	19	2	11	2	3	11	4

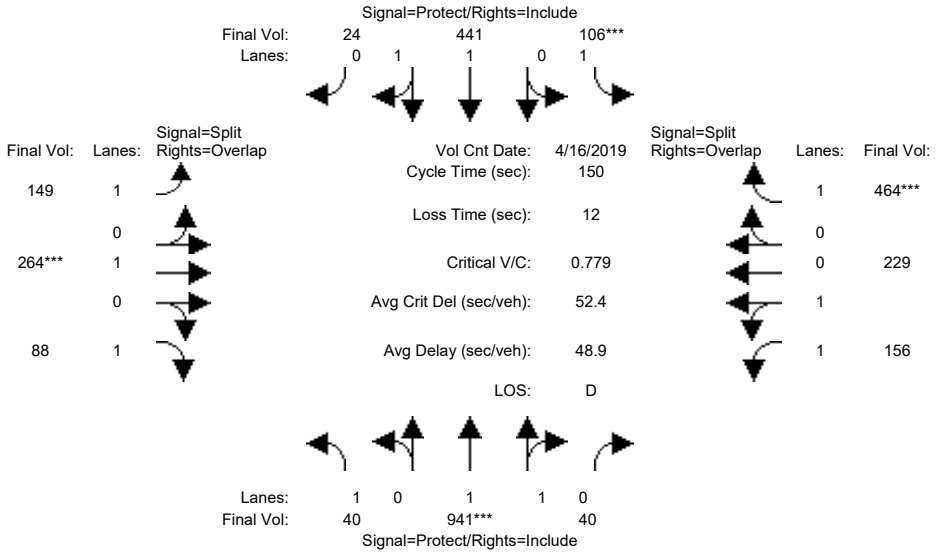
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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	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: >> Count Date: 16 Apr 2019 <<												
Base Vol:	40	938	40	105	439	24	149	252	88	156	214	463
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:	40	938	40	105	439	24	149	252	88	156	214	463
Added Vol:	0	3	0	1	2	0	0	12	0	0	15	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	941	40	106	441	24	149	264	88	156	229	464
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:	40	941	40	106	441	24	149	264	88	156	229	464
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	941	40	106	441	24	149	264	88	156	229	464
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:	40	941	40	106	441	24	149	264	88	156	229	464
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.98	0.83	0.96	0.96	0.83
Lanes:	1.00	1.92	0.08	1.00	1.90	0.10	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1753	3342	142	1753	3298	179	1769	1862	1583	1825	1825	1583
Capacity Analysis Module:												
Vol/Sat:	0.02	0.28	0.28	0.06	0.13	0.13	0.08	0.14	0.06	0.09	0.13	0.29
Crit Moves:		****		****				****				****
Green/Cycle:	0.11	0.36	0.36	0.08	0.33	0.33	0.18	0.18	0.30	0.30	0.30	0.38
Volume/Cap:	0.20	0.78	0.78	0.78	0.41	0.41	0.46	0.78	0.19	0.29	0.42	0.78
Delay/Veh:	60.8	45.7	45.7	92.2	39.6	39.6	55.8	69.4	39.6	40.4	42.5	47.8
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:	60.8	45.7	45.7	92.2	39.6	39.6	55.8	69.4	39.6	40.4	42.5	47.8
LOS by Move:	E	D	D	F	D	D	E	E	D	D	D	D
HCM2kAvgQ:	2	22	22	7	9	9	6	13	3	5	8	20

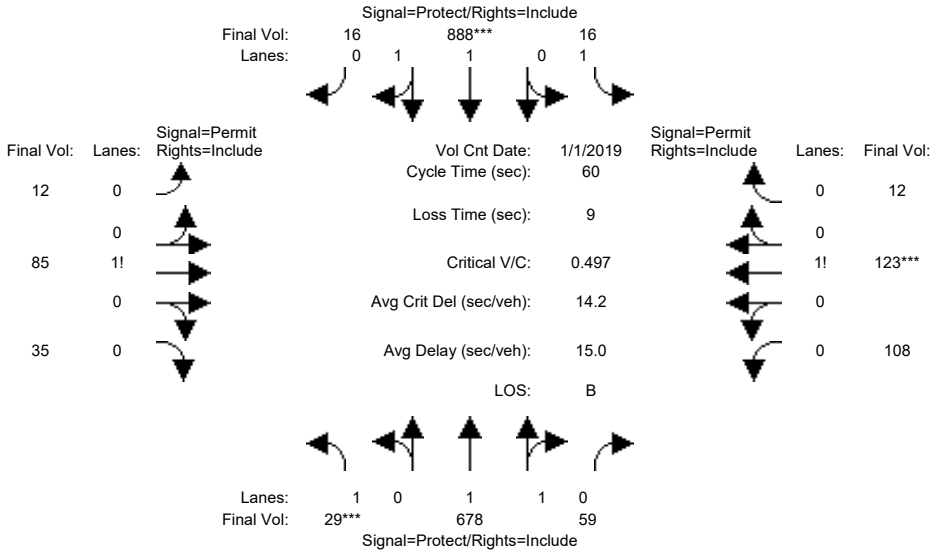
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #13: University Avenue and Bell Street



Street Name:	University Avenue						Bell Street					
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	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: >> Count Date: 1 Jan 2019 << 7:15-8:15 AM												
Base Vol:	29	678	43	16	888	16	12	76	35	90	115	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:	29	678	43	16	888	16	12	76	35	90	115	12
Added Vol:	0	0	16	0	0	0	0	9	0	18	8	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	678	59	16	888	16	12	85	35	108	123	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:	29	678	59	16	888	16	12	85	35	108	123	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	678	59	16	888	16	12	85	35	108	123	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:	29	678	59	16	888	16	12	85	35	108	123	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.93	0.93	0.93	0.83	0.83	0.83
Lanes:	1.00	1.84	0.16	1.00	1.96	0.04	0.09	0.64	0.27	0.44	0.51	0.05
Final Sat.:	1805	3281	286	1805	3535	64	161	1141	470	698	795	78
Capacity Analysis Module:												
Vol/Sat:	0.02	0.21	0.21	0.01	0.25	0.25	0.07	0.07	0.07	0.15	0.15	0.15
Crit Moves:	****				****						****	
Green/Cycle:	0.12	0.36	0.36	0.21	0.45	0.45	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	0.14	0.57	0.57	0.04	0.55	0.55	0.27	0.27	0.27	0.55	0.55	0.55
Delay/Veh:	24.1	15.9	15.9	19.1	12.4	12.4	17.1	17.1	17.1	20.0	20.0	20.0
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:	24.1	15.9	15.9	19.1	12.4	12.4	17.1	17.1	17.1	20.0	20.0	20.0
LOS by Move:	C	B	B	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	0	6	6	0	6	6	2	2	2	5	5	5

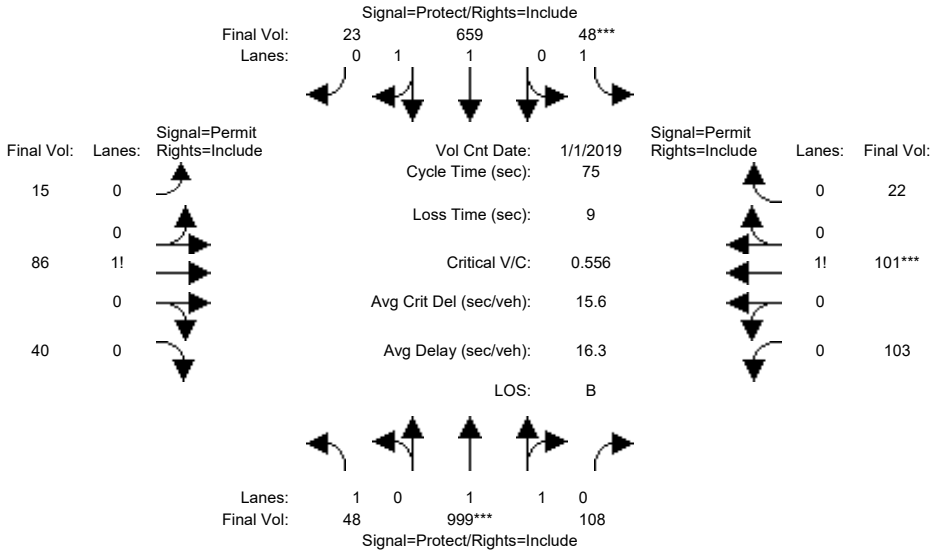
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #13: University Avenue and Bell Street



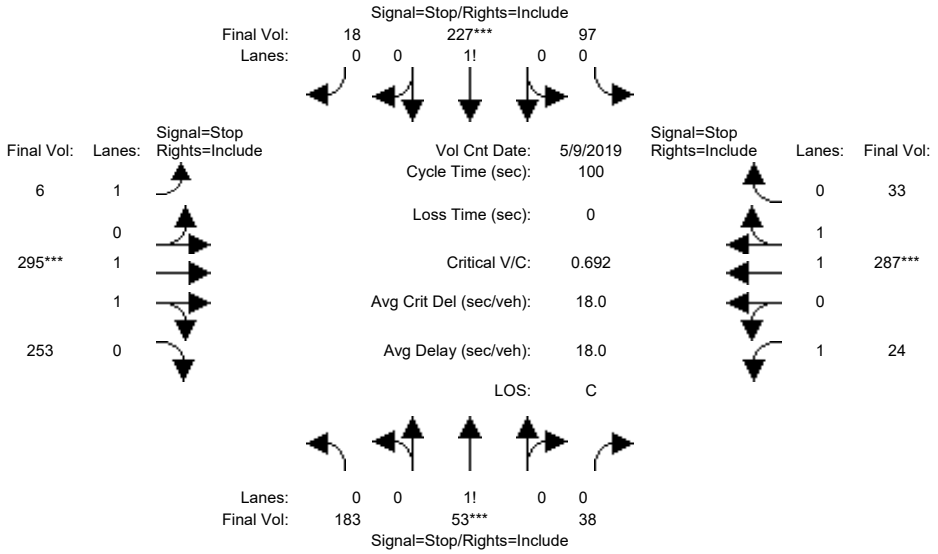

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Street Name:         University Avenue                 Bell Street
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10    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: >> Count Date: 1 Jan 2019 << 4:30-5:30 PM
Base Vol:       48  999  102    48  659   23    15   82   40    93   96   22
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  999  102    48  659   23    15   82   40    93   96   22
Added Vol:       0    0    6     0    0    0     0    4    0    10    5    0
PasserByVol:     0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    48  999  108    48  659   23    15   86   40   103  101   22
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  999  108    48  659   23    15   86   40   103  101   22
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    48  999  108    48  659   23    15   86   40   103  101   22
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  999  108    48  659   23    15   86   40   103  101   22
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.95 0.94 0.94  0.95 0.95 0.95  0.92 0.92 0.92  0.78 0.78 0.78
Lanes:        1.00 1.80 0.20  1.00 1.93 0.07  0.11 0.61 0.28  0.45 0.45 0.10
Final Sat.:   1805 3209  347  1805 3471  121   187 1071  498   679  665  145
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.03 0.31 0.31  0.03 0.19 0.19  0.08 0.08 0.08  0.15 0.15 0.15
Crit Moves:        ****       ****                            ****
Green/Cycle:  0.21 0.53 0.53  0.09 0.42 0.42  0.26 0.26 0.26  0.26 0.26 0.26
Volume/Cap:   0.13 0.59 0.59  0.28 0.46 0.46  0.31 0.31 0.31  0.59 0.59 0.59
Delay/Veh:    24.5 12.6 12.6  32.6 15.9 15.9  22.9 22.9 22.9  26.7 26.7 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:   24.5 12.6 12.6  32.6 15.9 15.9  22.9 22.9 22.9  26.7 26.7 26.7
LOS by Move:     C    B    B     C    B    B     C    C    C     C    C    C
HCM2kAvgQ:       1    9    9     1    6    6     3    3    3     5    5    5
Note: Queue reported is the number of cars per lane.
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #21: Clarke Avenue and Bay Road



Street Name:	Clarke Ave						Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	164	43	38	97	212	18	6	293	223	24	279	30
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:	164	43	38	97	212	18	6	293	223	24	279	30
Added Vol:	19	10	0	0	15	0	0	2	30	0	8	3
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	183	53	38	97	227	18	6	295	253	24	287	33
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:	183	53	38	97	227	18	6	295	253	24	287	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	53	38	97	227	18	6	295	253	24	287	33
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:	183	53	38	97	227	18	6	295	253	24	287	33
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.67	0.19	0.14	0.28	0.67	0.05	1.00	1.08	0.92	1.00	1.79	0.21
Final Sat.:	315	91	65	140	328	26	448	521	485	421	812	94
Capacity Analysis Module:												
Vol/Sat:	0.58	0.58	0.58	0.69	0.69	0.69	0.01	0.57	0.52	0.06	0.35	0.35
Crit Moves:		****			****			****			****	
Delay/Veh:	18.7	18.7	18.7	23.0	23.0	23.0	10.6	18.5	15.9	11.2	14.0	13.8
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
AdjDel/Veh:	18.7	18.7	18.7	23.0	23.0	23.0	10.6	18.5	15.9	11.2	14.0	13.8
LOS by Move:	C	C	C	C	C	C	B	C	C	B	B	B
ApproachDel:		18.7			23.0			17.2			13.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		18.7			23.0			17.2			13.7	
LOS by Appr:		C			C			C			B	
AllWayAvgQ:	1.1	1.1	1.1	1.8	1.8	1.8	0.0	1.2	1.0	0.1	0.5	0.5

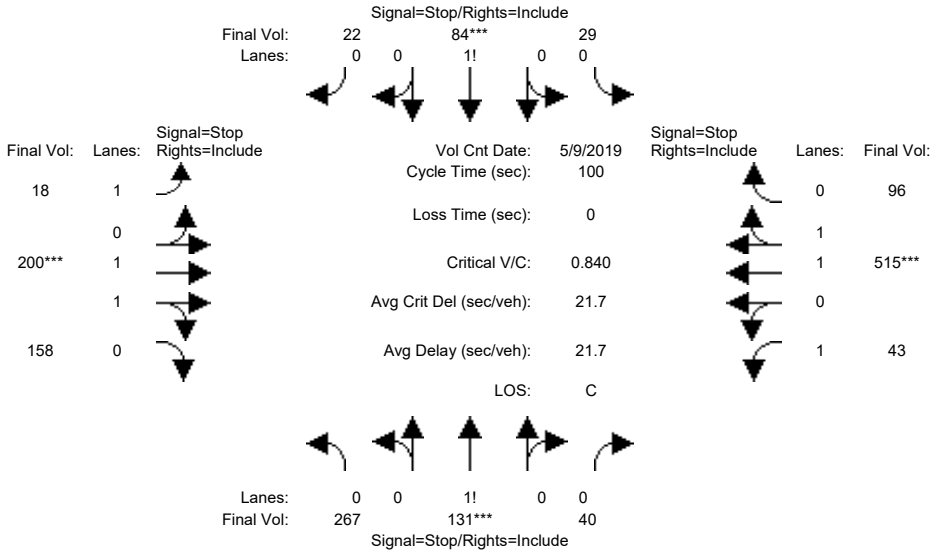
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #21: Clarke Avenue and Bay Road



Street Name:	Clarke Ave						Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	256	125	40	29	78	22	18	199	146	43	511	94
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:	256	125	40	29	78	22	18	199	146	43	511	94
Added Vol:	11	6	0	0	6	0	0	1	12	0	4	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	267	131	40	29	84	22	18	200	158	43	515	96
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:	267	131	40	29	84	22	18	200	158	43	515	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	131	40	29	84	22	18	200	158	43	515	96
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:	267	131	40	29	84	22	18	200	158	43	515	96
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.61	0.30	0.09	0.21	0.63	0.16	1.00	1.12	0.88	1.00	1.69	0.31
Final Sat.:	318	156	48	93	270	71	428	514	437	459	841	160
Capacity Analysis Module:												
Vol/Sat:	0.84	0.84	0.84	0.31	0.31	0.31	0.04	0.39	0.36	0.09	0.61	0.60
Crit Moves:		****			****			****			****	
Delay/Veh:	34.5	34.5	34.5	13.6	13.6	13.6	11.1	14.6	13.3	11.2	20.0	19.2
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
AdjDel/Veh:	34.5	34.5	34.5	13.6	13.6	13.6	11.1	14.6	13.3	11.2	20.0	19.2
LOS by Move:	D	D	D	B	B	B	B	B	B	B	C	C
ApproachDel:		34.5			13.6			13.9			19.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		34.5			13.6			13.9			19.3	
LOS by Appr:		D			B			B			C	
AllWayAvgQ:	3.6	3.6	3.6	0.4	0.4	0.4	0.0	0.6	0.5	0.1	1.4	1.3

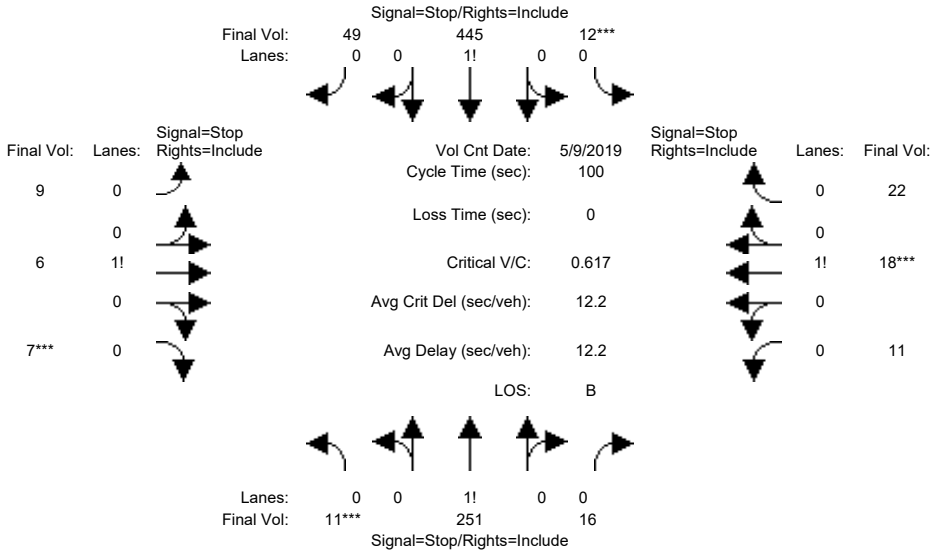
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	11	222	16	12	400	49	9	6	7	11	18	22
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:	11	222	16	12	400	49	9	6	7	11	18	22
Added Vol:	0	29	0	0	45	0	0	0	0	0	0	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	251	16	12	445	49	9	6	7	11	18	22
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:	11	251	16	12	445	49	9	6	7	11	18	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	251	16	12	445	49	9	6	7	11	18	22
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:	11	251	16	12	445	49	9	6	7	11	18	22
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.90	0.06	0.02	0.88	0.10	0.41	0.27	0.32	0.22	0.35	0.43
Final Sat.:	30	694	44	19	722	79	235	156	182	129	211	257
Capacity Analysis Module:												
Vol/Sat:	0.36	0.36	0.36	0.62	0.62	0.62	0.04	0.04	0.04	0.09	0.09	0.09
Crit Moves:	****			****					****		****	
Delay/Veh:	10.1	10.1	10.1	13.9	13.9	13.9	8.7	8.7	8.7	8.8	8.8	8.8
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
AdjDel/Veh:	10.1	10.1	10.1	13.9	13.9	13.9	8.7	8.7	8.7	8.8	8.8	8.8
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:	10.1			13.9			8.7			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			13.9			8.7			8.8		
LOS by Appr:	B			B			A			A		
AllWayAvgQ:	0.5	0.5	0.5	1.5	1.5	1.5	0.0	0.0	0.0	0.1	0.1	0.1

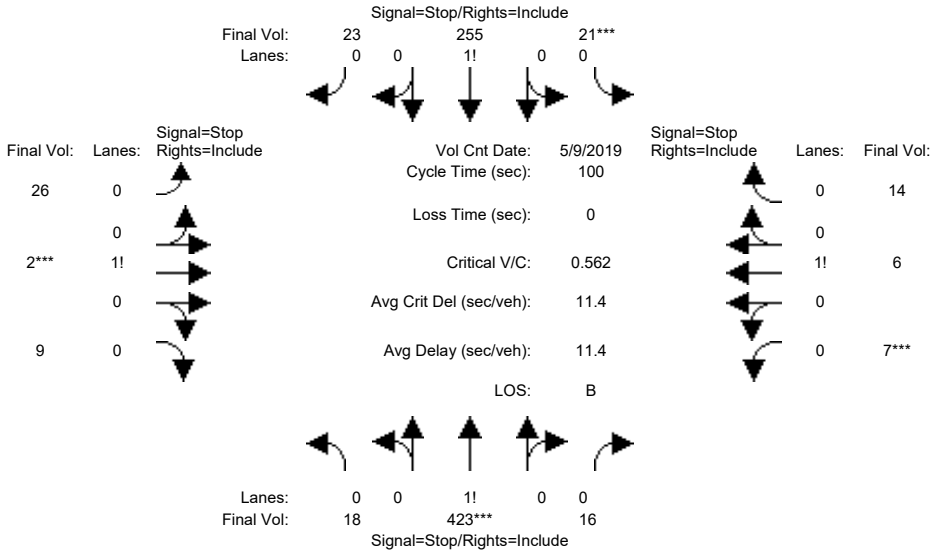
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	18	406	16	21	238	23	26	2	9	7	6	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:	18	406	16	21	238	23	26	2	9	7	6	14
Added Vol:	0	17	0	0	17	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	423	16	21	255	23	26	2	9	7	6	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:	18	423	16	21	255	23	26	2	9	7	6	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	423	16	21	255	23	26	2	9	7	6	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:	18	423	16	21	255	23	26	2	9	7	6	14
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.93	0.03	0.07	0.85	0.08	0.71	0.05	0.24	0.26	0.22	0.52
Final Sat.:	32	753	28	55	668	60	409	31	141	156	134	312
Capacity Analysis Module:												
Vol/Sat:	0.56	0.56	0.56	0.38	0.38	0.38	0.06	0.06	0.06	0.04	0.04	0.04
Crit Moves:		****			****			****			****	
Delay/Veh:	12.7	12.7	12.7	10.2	10.2	10.2	8.8	8.8	8.8	8.5	8.5	8.5
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
AdjDel/Veh:	12.7	12.7	12.7	10.2	10.2	10.2	8.8	8.8	8.8	8.5	8.5	8.5
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:		12.7			10.2			8.8			8.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		12.7			10.2			8.8			8.5	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	1.2	1.2	1.2	0.6	0.6	0.6	0.1	0.1	0.1	0.0	0.0	0.0

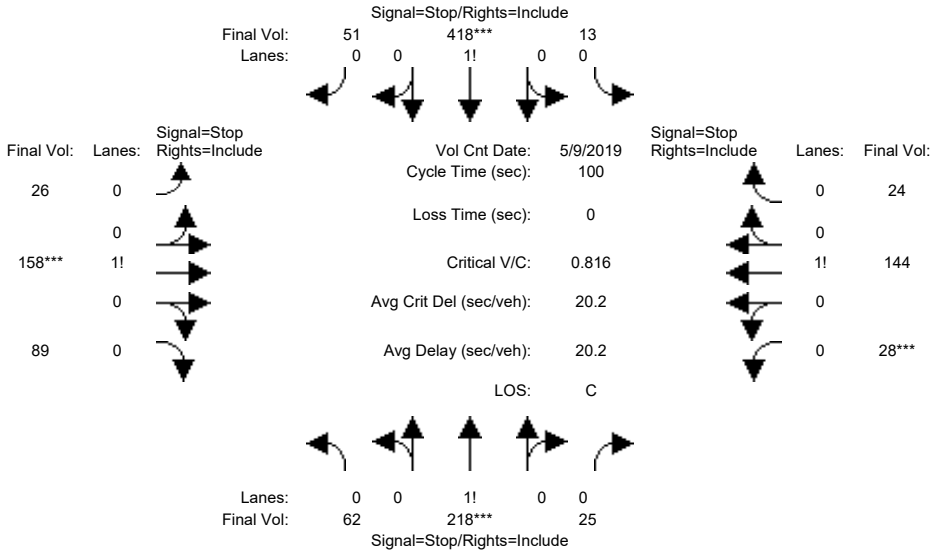
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #23: Clarke Avenue and Runnymede Street



Street Name:	Clarke Avenue						Runnymede Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	56	189	25	13	373	51	26	158	74	28	142	24
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:	56	189	25	13	373	51	26	158	74	28	142	24
Added Vol:	6	29	0	0	45	0	0	0	15	0	2	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	218	25	13	418	51	26	158	89	28	144	24
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:	62	218	25	13	418	51	26	158	89	28	144	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	218	25	13	418	51	26	158	89	28	144	24
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:	62	218	25	13	418	51	26	158	89	28	144	24
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.72	0.08	0.03	0.87	0.10	0.09	0.58	0.33	0.14	0.74	0.12
Final Sat.:	108	381	44	16	512	63	48	294	166	67	344	57
Capacity Analysis Module:												
Vol/Sat:	0.57	0.57	0.57	0.82	0.82	0.82	0.54	0.54	0.54	0.42	0.42	0.42
Crit Moves:		****			****			****			****	
Delay/Veh:	16.3	16.3	16.3	28.0	28.0	28.0	15.4	15.4	15.4	13.6	13.6	13.6
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
AdjDel/Veh:	16.3	16.3	16.3	28.0	28.0	28.0	15.4	15.4	15.4	13.6	13.6	13.6
LOS by Move:	C	C	C	D	D	D	C	C	C	B	B	B
ApproachDel:		16.3			28.0			15.4			13.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.3			28.0			15.4			13.6	
LOS by Appr:		C			D			C			B	
AllWayAvgQ:	1.0	1.0	1.0	3.1	3.1	3.1	0.8	0.8	0.8	0.5	0.5	0.5

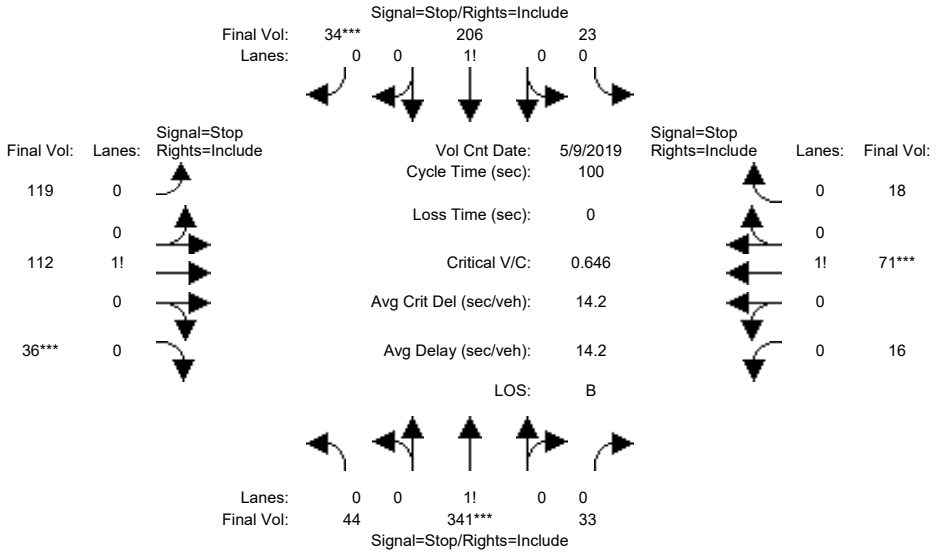
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #23: Clarke Avenue and Runnymede Street



Street Name:	Clarke Avenue						Runnymede Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	40	324	33	23	189	34	119	112	30	16	70	18
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:	40	324	33	23	189	34	119	112	30	16	70	18
Added Vol:	4	17	0	0	17	0	0	0	6	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	341	33	23	206	34	119	112	36	16	71	18
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:	44	341	33	23	206	34	119	112	36	16	71	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	341	33	23	206	34	119	112	36	16	71	18
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:	44	341	33	23	206	34	119	112	36	16	71	18
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.82	0.08	0.09	0.78	0.13	0.45	0.42	0.13	0.15	0.68	0.17
Final Sat.:	68	528	51	53	476	79	254	239	77	78	345	87
Capacity Analysis Module:												
Vol/Sat:	0.65	0.65	0.65	0.43	0.43	0.43	0.47	0.47	0.47	0.21	0.21	0.21
Crit Moves:		****				****			****		****	
Delay/Veh:	16.9	16.9	16.9	12.3	12.3	12.3	13.3	13.3	13.3	10.4	10.4	10.4
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
AdjDel/Veh:	16.9	16.9	16.9	12.3	12.3	12.3	13.3	13.3	13.3	10.4	10.4	10.4
LOS by Move:	C	C	C	B	B	B	B	B	B	B	B	B
ApproachDel:		16.9			12.3			13.3			10.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.9			12.3			13.3			10.4	
LOS by Appr:		C			B			B			B	
AllWayAvgQ:	1.5	1.5	1.5	0.6	0.6	0.6	0.7	0.7	0.7	0.2	0.2	0.2

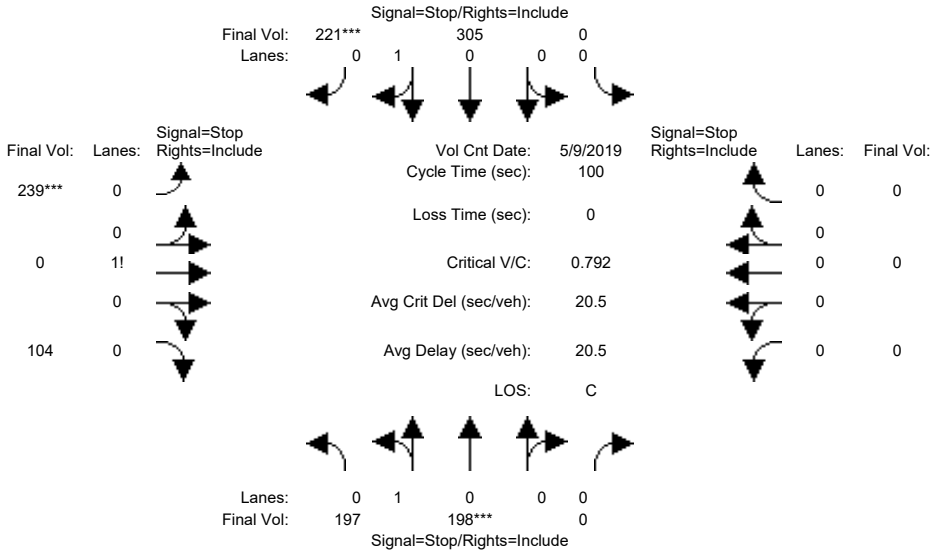
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KIPP Charter High School TIA
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City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #24: Clarke Avenue and Donohoe Street



Street Name:	Clarke Avenue						Donohoe Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	197	196	0	0	303	195	206	0	104	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:	197	196	0	0	303	195	206	0	104	0	0	0
Added Vol:	0	2	0	0	2	26	33	0	0	0	0	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	198	0	0	305	221	239	0	104	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:	197	198	0	0	305	221	239	0	104	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	198	0	0	305	221	239	0	104	0	0	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:	197	198	0	0	305	221	239	0	104	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.50	0.00	0.00	0.58	0.42	0.70	0.00	0.30	0.00	0.00	0.00
Final Sat.:	300	301	0	0	385	279	395	0	172	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.66	0.66	xxxx	xxxx	0.79	0.79	0.61	xxxx	0.61	xxxx	xxxx	xxxx
Crit Moves:		****				****	****					
Delay/Veh:	18.5	18.5	0.0	0.0	24.5	24.5	16.9	0.0	16.9	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
AdjDel/Veh:	18.5	18.5	0.0	0.0	24.5	24.5	16.9	0.0	16.9	0.0	0.0	0.0
LOS by Move:	C	C	*	*	C	C	C	*	C	*	*	*
ApproachDel:		18.5			24.5			16.9			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		18.5			24.5			16.9			xxxxxx	
LOS by Appr:		C			C			C			*	
AllWayAvgQ:	1.6	1.6	1.6	3.0	3.0	3.0	1.2	1.2	1.2	0.0	0.0	0.0

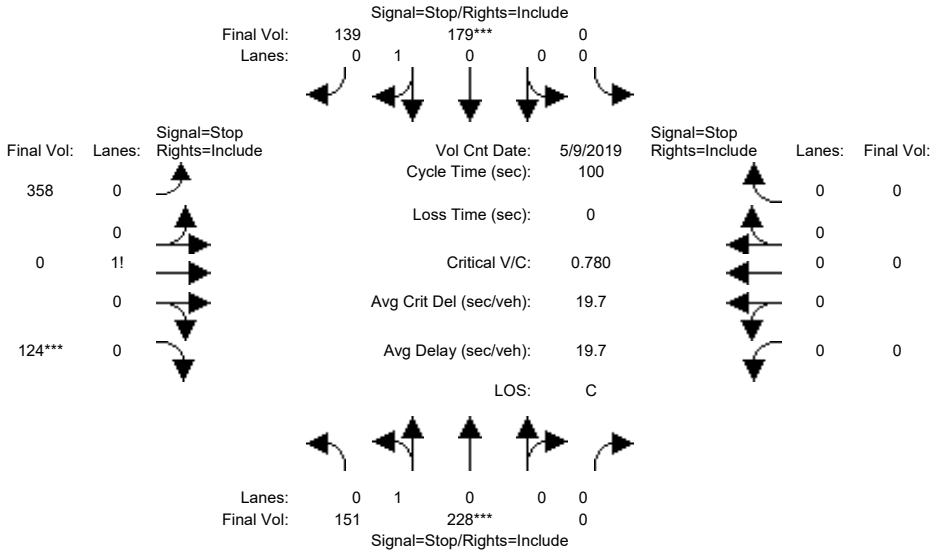
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #24: Clarke Avenue and Donohoe Street



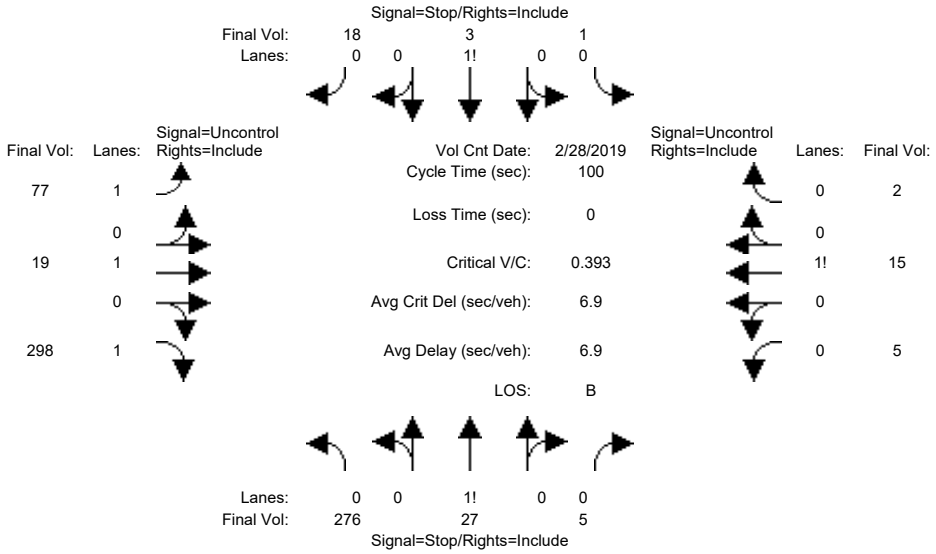

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Street Name:          Clarke Avenue                    Donohoe Street
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 9 May 2019 <<
Base Vol:     151  227     0     0  178   124   345    0   124     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:  151  227     0     0  178   124   345    0   124     0    0     0
Added Vol:      0    1     0     0    1    15    13    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  151  228     0     0  179   139   358    0   124     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:   151  228     0     0  179   139   358    0   124     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  151  228     0     0  179   139   358    0   124     0    0     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:  151  228     0     0  179   139   358    0   124     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.40 0.60  0.00  0.00 0.56  0.44  0.74 0.00  0.26  0.00 0.00  0.00
Final Sat.:   235  355     0     0  340   264   459    0   159     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.64 0.64  xxxx  xxxx 0.53  0.53  0.78 xxxx  0.78  xxxx xxxx  xxxx
Crit Moves:       ****             ****                     ****
Delay/Veh:   18.1 18.1   0.0   0.0 14.3  14.3  24.5  0.0  24.5   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
AdjDel/Veh:  18.1 18.1   0.0   0.0 14.3  14.3  24.5  0.0  24.5   0.0  0.0   0.0
LOS by Move:    C    C     *     *    B     B     C    *     C     *    *     *
ApproachDel:       18.1             14.3             24.5           xxxxxx
Delay Adj:         1.00             1.00             1.00            xxxxx
ApprAdjDel:        18.1             14.3             24.5           xxxxxx
LOS by Appr:          C                B                C                *
AllWayAvgQ:   1.5  1.5   1.5   0.9  0.9   0.9   2.7  2.7   2.7   0.0  0.0   0.0
Note: Queue reported is the number of cars per lane.
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #27: Pulgas Avenue and Bay Road



Street Name:	Pulgas Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	265	27	5	1	3	18	77	19	296	5	15	2
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:	265	27	5	1	3	18	77	19	296	5	15	2
Added Vol:	11	0	0	0	0	0	0	0	2	0	0	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	276	27	5	1	3	18	77	19	298	5	15	2
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:	276	27	5	1	3	18	77	19	298	5	15	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	276	27	5	1	3	18	77	19	298	5	15	2
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	210	200	19	364	497	16	17	xxxx	xxxxx	317	xxxx	xxxxx
Potent Cap.:	748	696	1059	592	475	1063	1600	xxxx	xxxxx	1243	xxxx	xxxxx
Move Cap.:	702	660	1059	548	450	1063	1600	xxxx	xxxxx	1243	xxxx	xxxxx
Volume/Cap:	0.39	0.04	0.00	0.00	0.01	0.02	0.05	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	702	xxxxx	xxxx	865	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	2.2	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	14.1	xxxxx	xxxxx	9.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	A	*	*	*	*	*	*	*
ApproachDel:		14.1			9.3		xxxxxx			xxxxxx		
ApproachLOS:		B			A		*			*		

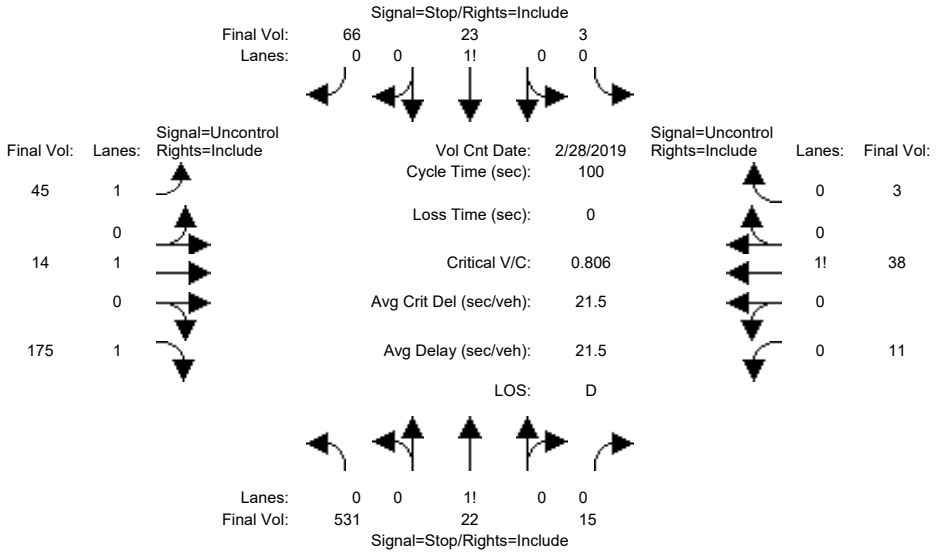
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #27: Pulgas Avenue and Bay Road



Street Name:	Pulgas Avenue						Bay Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module: >> Count Date: 28 Feb 2019 <<												
Base Vol:	525	22	15	3	23	66	45	14	174	11	38	3
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:	525	22	15	3	23	66	45	14	174	11	38	3
Added Vol:	6	0	0	0	0	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	531	22	15	3	23	66	45	14	175	11	38	3
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:	531	22	15	3	23	66	45	14	175	11	38	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	531	22	15	3	23	66	45	14	175	11	38	3
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	210	167	14	272	341	40	41	xxxx	xxxxx	189	xxxx	xxxxx
Potent Cap.:	747	726	1066	681	581	1032	1568	xxxx	xxxxx	1385	xxxx	xxxxx
Move Cap.:	659	699	1066	637	560	1032	1568	xxxx	xxxxx	1385	xxxx	xxxxx
Volume/Cap:	0.81	0.03	0.01	0.00	0.04	0.06	0.03	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	667	xxxxx	xxxx	838	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	9.7	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	33.4	xxxxx	xxxxx	9.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	A	*	*	*	*	*	*	*
ApproachDel:		33.4			9.8		xxxxxx			xxxxxx		
ApproachLOS:		D			A		*			*		

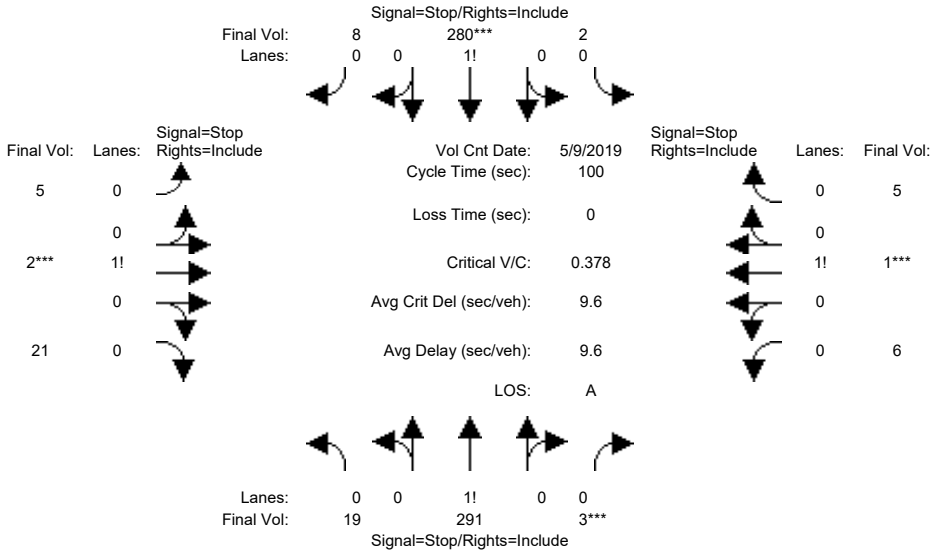
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	19	280	3	2	278	8	5	2	21	6	1	5
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:	19	280	3	2	278	8	5	2	21	6	1	5
Added Vol:	0	11	0	0	2	0	0	0	0	0	0	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	291	3	2	280	8	5	2	21	6	1	5
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:	19	291	3	2	280	8	5	2	21	6	1	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	291	3	2	280	8	5	2	21	6	1	5
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:	19	291	3	2	280	8	5	2	21	6	1	5
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.93	0.01	0.01	0.96	0.03	0.18	0.07	0.75	0.50	0.08	0.42
Final Sat.:	50	771	8	6	799	23	122	49	512	322	54	268
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.38	0.35	0.35	0.35	0.04	0.04	0.04	0.02	0.02	0.02
Crit Moves:			****			****			****			****
Delay/Veh:	9.8	9.8	9.8	9.5	9.5	9.5	7.9	7.9	7.9	8.1	8.1	8.1
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
AdjDel/Veh:	9.8	9.8	9.8	9.5	9.5	9.5	7.9	7.9	7.9	8.1	8.1	8.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		9.8			9.5			7.9			8.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.8			9.5			7.9			8.1	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.6	0.6	0.6	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0

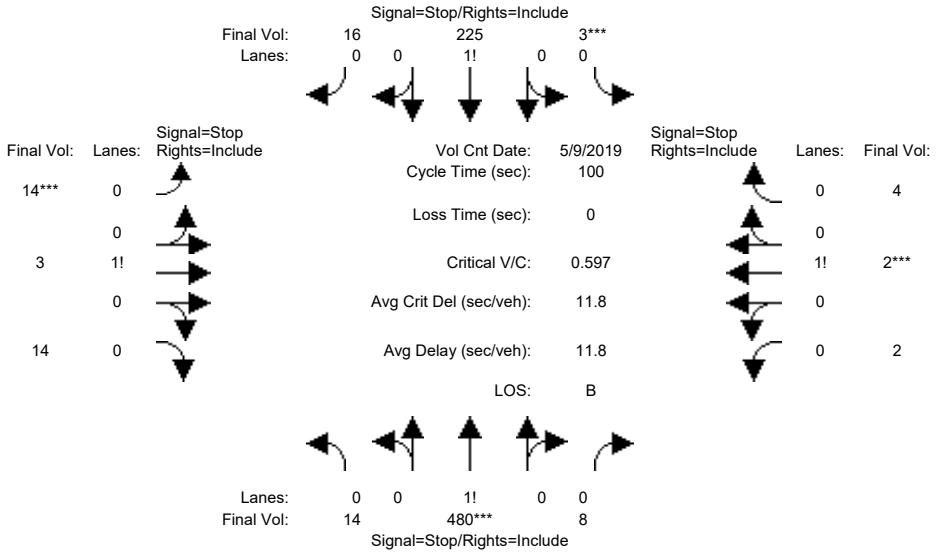
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	14	474	8	3	224	16	14	3	14	2	2	4
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:	14	474	8	3	224	16	14	3	14	2	2	4
Added Vol:	0	6	0	0	1	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	480	8	3	225	16	14	3	14	2	2	4
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:	14	480	8	3	225	16	14	3	14	2	2	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	480	8	3	225	16	14	3	14	2	2	4
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:	14	480	8	3	225	16	14	3	14	2	2	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.96	0.01	0.01	0.92	0.07	0.45	0.10	0.45	0.25	0.25	0.50
Final Sat.:	23	804	13	10	731	52	275	59	275	152	152	303
Capacity Analysis Module:												
Vol/Sat:	0.60	0.60	0.60	0.31	0.31	0.31	0.05	0.05	0.05	0.01	0.01	0.01
Crit Moves:		****			****			****			****	
Delay/Veh:	13.2	13.2	13.2	9.4	9.4	9.4	8.5	8.5	8.5	8.3	8.3	8.3
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
AdjDel/Veh:	13.2	13.2	13.2	9.4	9.4	9.4	8.5	8.5	8.5	8.3	8.3	8.3
LOS by Move:	B	B	B	A	A	A	A	A	A	A	A	A
ApproachDel:		13.2			9.4			8.5			8.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.2			9.4			8.5			8.3	
LOS by Appr:		B			A			A			A	
AllWayAvgQ:	1.4	1.4	1.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0

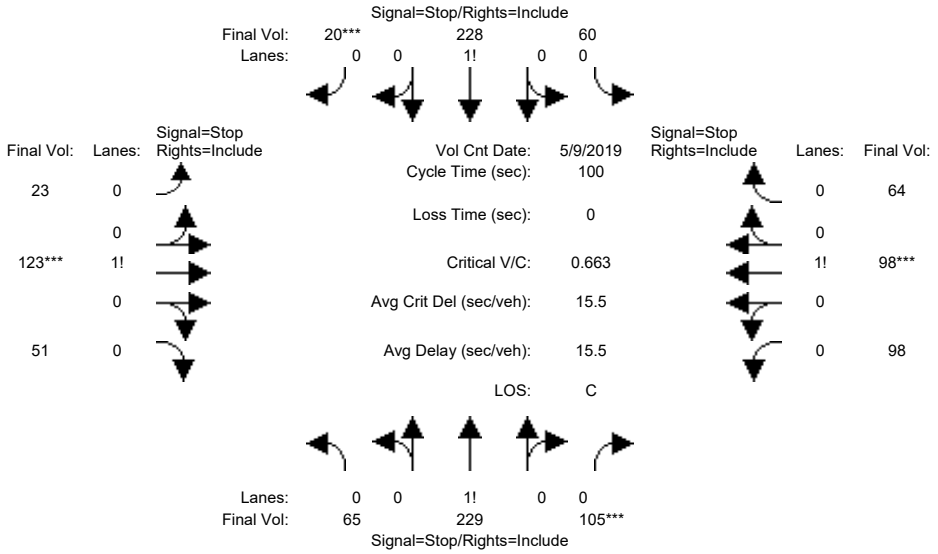
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #29: Pulgas Avenue and Runnymead Street



Street Name:	Pulgas Avenue						Runnymead Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	63	218	105	60	226	20	23	123	51	98	98	64
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:	63	218	105	60	226	20	23	123	51	98	98	64
Added Vol:	2	11	0	0	2	0	0	0	0	0	0	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	229	105	60	228	20	23	123	51	98	98	64
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:	65	229	105	60	228	20	23	123	51	98	98	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	229	105	60	228	20	23	123	51	98	98	64
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:	65	229	105	60	228	20	23	123	51	98	98	64
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.58	0.26	0.19	0.75	0.06	0.12	0.62	0.26	0.38	0.38	0.24
Final Sat.:	98	345	158	110	417	37	59	317	131	200	200	131
Capacity Analysis Module:												
Vol/Sat:	0.66	0.66	0.66	0.55	0.55	0.55	0.39	0.39	0.39	0.49	0.49	0.49
Crit Moves:			****			****		****			****	
Delay/Veh:	18.1	18.1	18.1	15.1	15.1	15.1	12.5	12.5	12.5	14.1	14.1	14.1
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
AdjDel/Veh:	18.1	18.1	18.1	15.1	15.1	15.1	12.5	12.5	12.5	14.1	14.1	14.1
LOS by Move:	C	C	C	C	C	C	B	B	B	B	B	B
ApproachDel:		18.1			15.1			12.5			14.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		18.1			15.1			12.5			14.1	
LOS by Appr:		C			C			B			B	
AllWayAvgQ:	1.6	1.6	1.6	1.0	1.0	1.0	0.5	0.5	0.5	0.7	0.7	0.7

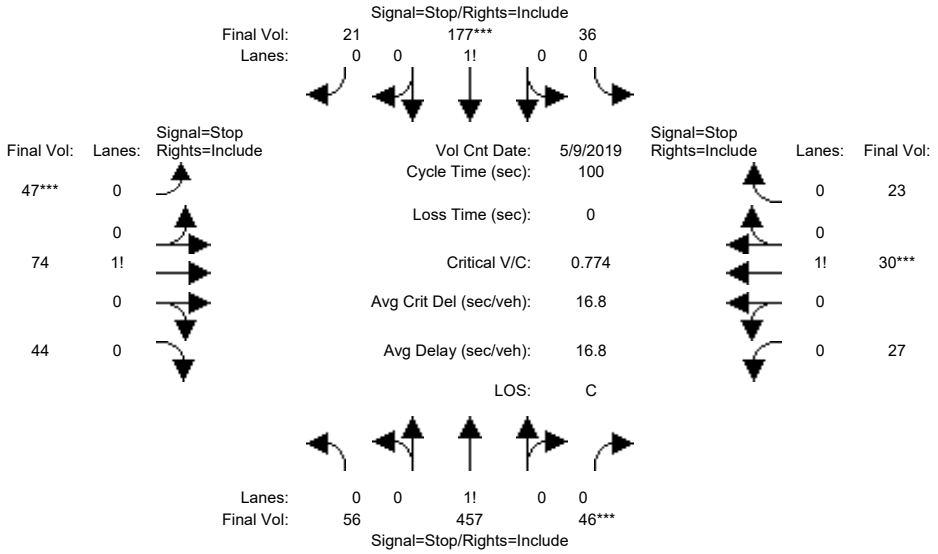
Note: Queue reported is the number of cars per lane.

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City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #29: Pulgas Avenue and Runnymead Street



Street Name:	Pulgas Avenue						Runnymead Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	55	451	46	36	176	21	47	74	44	27	30	23
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:	55	451	46	36	176	21	47	74	44	27	30	23
Added Vol:	1	6	0	0	1	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	457	46	36	177	21	47	74	44	27	30	23
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:	56	457	46	36	177	21	47	74	44	27	30	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	457	46	36	177	21	47	74	44	27	30	23
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:	56	457	46	36	177	21	47	74	44	27	30	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.82	0.08	0.15	0.76	0.09	0.28	0.45	0.27	0.34	0.37	0.29
Final Sat.:	72	590	59	99	486	58	159	250	149	179	199	152
Capacity Analysis Module:												
Vol/Sat:	0.77	0.77	0.77	0.36	0.36	0.36	0.30	0.30	0.30	0.15	0.15	0.15
Crit Moves:			****		****		****				****	
Delay/Veh:	21.9	21.9	21.9	11.1	11.1	11.1	10.9	10.9	10.9	9.9	9.9	9.9
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
AdjDel/Veh:	21.9	21.9	21.9	11.1	11.1	11.1	10.9	10.9	10.9	9.9	9.9	9.9
LOS by Move:	C	C	C	B	B	B	B	B	B	A	A	A
ApproachDel:		21.9			11.1			10.9			9.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		21.9			11.1			10.9			9.9	
LOS by Appr:		C			B			B			A	
AllWayAvgQ:	2.8	2.8	2.8	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1

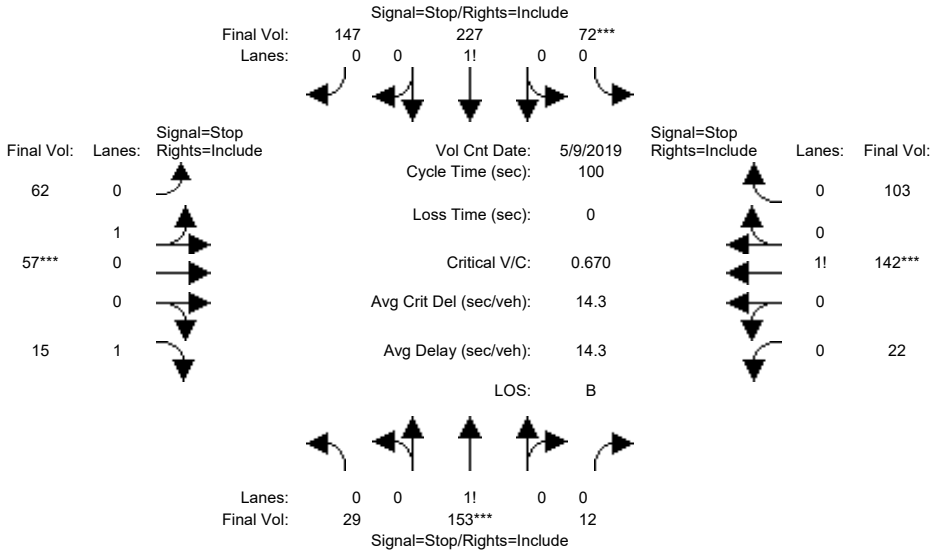
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	29	144	12	68	219	145	60	57	15	22	142	98
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:	29	144	12	68	219	145	60	57	15	22	142	98
Added Vol:	0	9	0	4	8	2	2	0	0	0	0	5
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	153	12	72	227	147	62	57	15	22	142	103
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:	29	153	12	72	227	147	62	57	15	22	142	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	153	12	72	227	147	62	57	15	22	142	103
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:	29	153	12	72	227	147	62	57	15	22	142	103
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.15	0.79	0.06	0.16	0.51	0.33	0.52	0.48	1.00	0.08	0.53	0.39
Final Sat.:	86	456	36	107	339	219	248	228	545	48	311	226
Capacity Analysis Module:												
Vol/Sat:	0.34	0.34	0.34	0.67	0.67	0.67	0.25	0.25	0.03	0.46	0.46	0.46
Crit Moves:		****			****				****			****
Delay/Veh:	11.3	11.3	11.3	17.3	17.3	17.3	11.5	11.5	8.7	12.9	12.9	12.9
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
AdjDel/Veh:	11.3	11.3	11.3	17.3	17.3	17.3	11.5	11.5	8.7	12.9	12.9	12.9
LOS by Move:	B	B	B	C	C	C	B	B	A	B	B	B
ApproachDel:		11.3			17.3			11.2			12.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.3			17.3			11.2			12.9	
LOS by Appr:		B			C			B			B	
AllWayAvgQ:	0.4	0.4	0.4	1.7	1.7	1.7	0.3	0.3	0.0	0.7	0.7	0.7

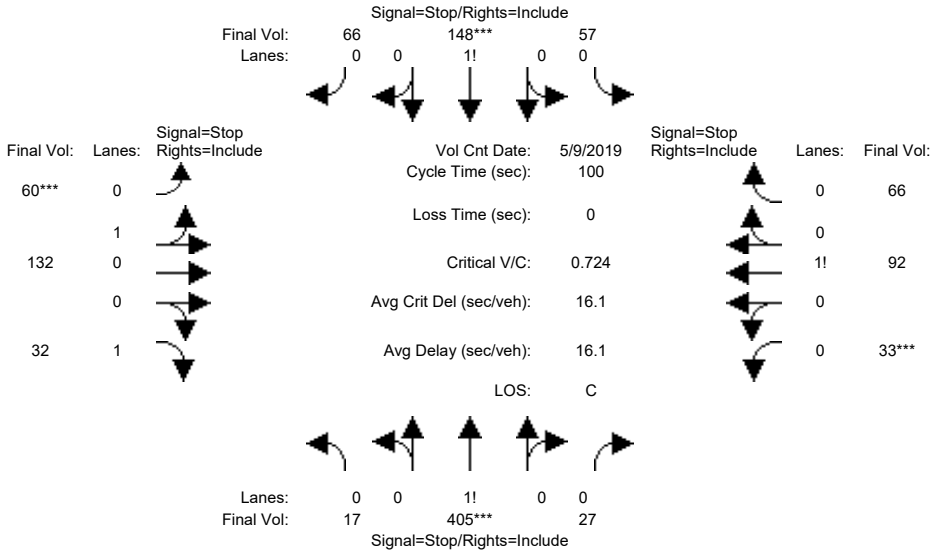
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	17	401	27	55	143	65	59	132	32	33	92	64
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:	17	401	27	55	143	65	59	132	32	33	92	64
Added Vol:	0	4	0	2	5	1	1	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	405	27	57	148	66	60	132	32	33	92	66
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:	17	405	27	57	148	66	60	132	32	33	92	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	405	27	57	148	66	60	132	32	33	92	66
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:	17	405	27	57	148	66	60	132	32	33	92	66
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.90	0.06	0.21	0.55	0.24	0.31	0.69	1.00	0.17	0.48	0.35
Final Sat.:	23	560	37	121	314	140	149	328	538	89	248	178
Capacity Analysis Module:												
Vol/Sat:	0.72	0.72	0.72	0.47	0.47	0.47	0.40	0.40	0.06	0.37	0.37	0.37
Crit Moves:		****			****			****			****	
Delay/Veh:	20.8	20.8	20.8	13.4	13.4	13.4	13.7	13.7	9.1	12.4	12.4	12.4
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
AdjDel/Veh:	20.8	20.8	20.8	13.4	13.4	13.4	13.7	13.7	9.1	12.4	12.4	12.4
LOS by Move:	C	C	C	B	B	B	B	B	A	B	B	B
ApproachDel:		20.8			13.4			13.0			12.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		20.8			13.4			13.0			12.4	
LOS by Appr:		C			B			B			B	
AllWayAvgQ:	2.1	2.1	2.1	0.7	0.7	0.7	0.5	0.5	0.1	0.4	0.4	0.4

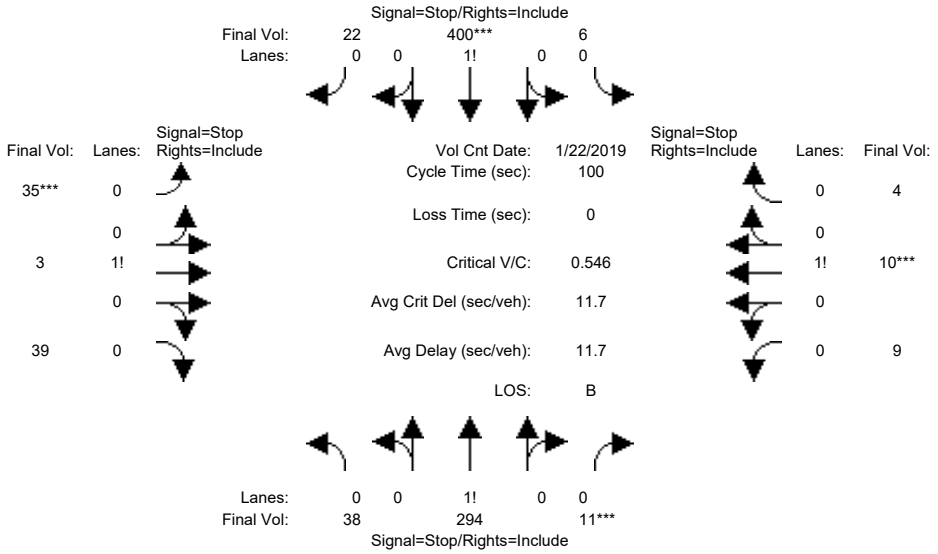
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 22 Jan 2019 << 07:45 AM - 08:45 AM												
Base Vol:	22	294	11	6	400	20	22	3	21	9	10	4
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:	22	294	11	6	400	20	22	3	21	9	10	4
Added Vol:	16	0	0	0	0	2	13	0	18	0	0	0
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	294	11	6	400	22	35	3	39	9	10	4
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:	38	294	11	6	400	22	35	3	39	9	10	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	294	11	6	400	22	35	3	39	9	10	4
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:	38	294	11	6	400	22	35	3	39	9	10	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.11	0.86	0.03	0.01	0.94	0.05	0.45	0.04	0.51	0.39	0.44	0.17
Final Sat.:	84	652	24	11	732	40	272	23	303	218	242	97
Capacity Analysis Module:												
Vol/Sat:	0.45	0.45	0.45	0.55	0.55	0.55	0.13	0.13	0.13	0.04	0.04	0.04
Crit Moves:			****			****			****			****
Delay/Veh:	11.2	11.2	11.2	12.6	12.6	12.6	9.1	9.1	9.1	8.9	8.9	8.9
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
AdjDel/Veh:	11.2	11.2	11.2	12.6	12.6	12.6	9.1	9.1	9.1	8.9	8.9	8.9
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:		11.2			12.6			9.1			8.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.2			12.6			9.1			8.9	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	0.8	0.8	0.8	1.1	1.1	1.1	0.1	0.1	0.1	0.0	0.0	0.0

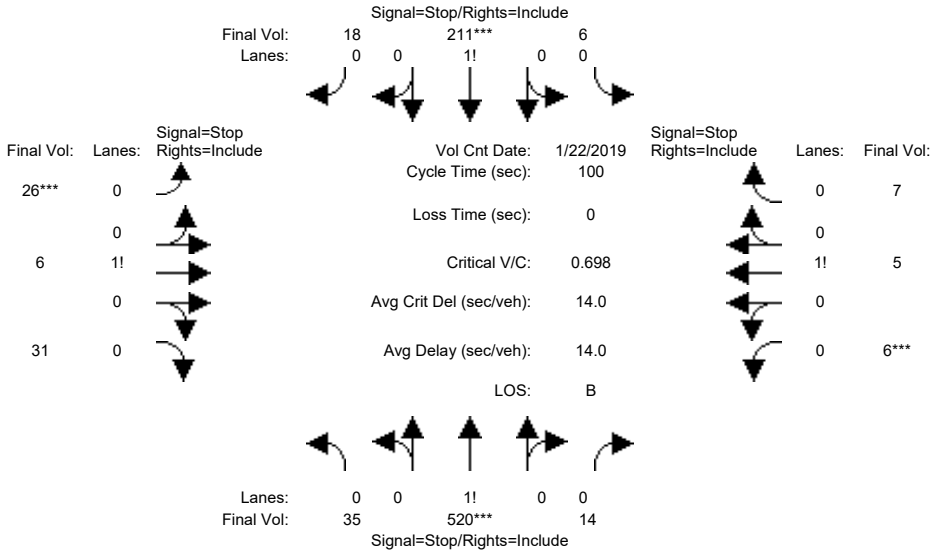
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 22 Jan 2019 << 05:15 PM - 06:15 PM												
Base Vol:	29	520	14	6	211	17	18	6	20	6	5	7
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:	29	520	14	6	211	17	18	6	20	6	5	7
Added Vol:	6	0	0	0	0	1	8	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	520	14	6	211	18	26	6	31	6	5	7
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:	35	520	14	6	211	18	26	6	31	6	5	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	520	14	6	211	18	26	6	31	6	5	7
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:	35	520	14	6	211	18	26	6	31	6	5	7
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.92	0.02	0.02	0.90	0.08	0.41	0.10	0.49	0.33	0.28	0.39
Final Sat.:	50	745	20	19	675	58	244	56	291	190	158	222
Capacity Analysis Module:												
Vol/Sat:	0.70	0.70	0.70	0.31	0.31	0.31	0.11	0.11	0.11	0.03	0.03	0.03
Crit Moves:		****			****			****			****	
Delay/Veh:	16.6	16.6	16.6	9.7	9.7	9.7	9.0	9.0	9.0	8.7	8.7	8.7
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
AdjDel/Veh:	16.6	16.6	16.6	9.7	9.7	9.7	9.0	9.0	9.0	8.7	8.7	8.7
LOS by Move:	C	C	C	A	A	A	A	A	A	A	A	A
ApproachDel:		16.6			9.7			9.0			8.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		16.6			9.7			9.0			8.7	
LOS by Appr:		C			A			A			A	
AllWayAvgQ:	2.1	2.1	2.1	0.4	0.4	0.4	0.1	0.1	0.1	0.0	0.0	0.0

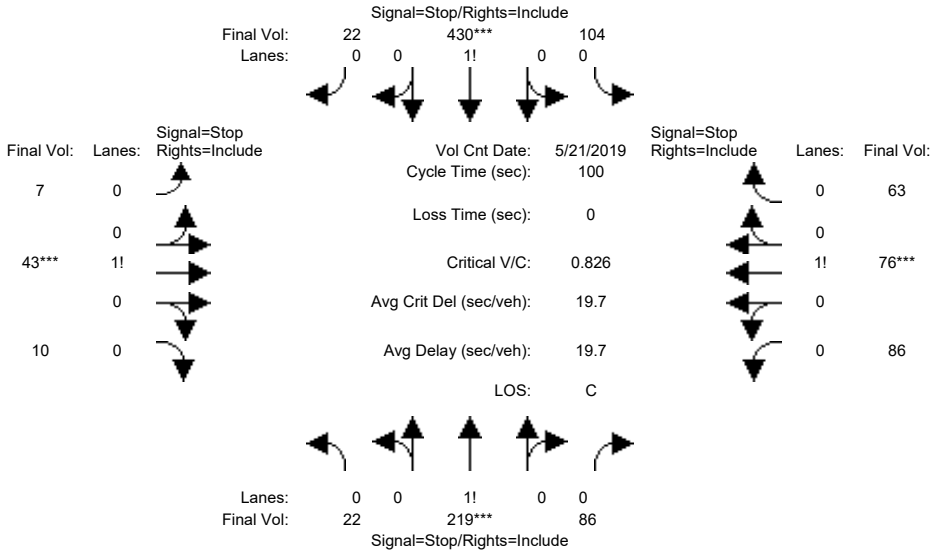
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd AM

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 21 May 2019 << 07:30 AM - 08:30 AM												
Base Vol:	22	219	26	44	430	22	7	28	10	36	56	27
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:	22	219	26	44	430	22	7	28	10	36	56	27
Added Vol:	0	0	60	60	0	0	0	15	0	50	20	36
Univ Palms:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	219	86	104	430	22	7	43	10	86	76	63
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:	22	219	86	104	430	22	7	43	10	86	76	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	219	86	104	430	22	7	43	10	86	76	63
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:	22	219	86	104	430	22	7	43	10	86	76	63
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.07	0.67	0.26	0.19	0.77	0.04	0.11	0.72	0.17	0.38	0.34	0.28
Final Sat.:	43	425	167	126	521	27	56	345	80	208	184	153
Capacity Analysis Module:												
Vol/Sat:	0.52	0.52	0.52	0.83	0.83	0.83	0.12	0.12	0.12	0.41	0.41	0.41
Crit Moves:		****			****			****			****	
Delay/Veh:	13.6	13.6	13.6	27.1	27.1	27.1	10.3	10.3	10.3	12.8	12.8	12.8
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
AdjDel/Veh:	13.6	13.6	13.6	27.1	27.1	27.1	10.3	10.3	10.3	12.8	12.8	12.8
LOS by Move:	B	B	B	D	D	D	B	B	B	B	B	B
ApproachDel:		13.6			27.1			10.3			12.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.6			27.1			10.3			12.8	
LOS by Appr:		B			D			B			B	
AllWayAvgQ:	0.9	0.9	0.9	3.5	3.5	3.5	0.1	0.1	0.1	0.6	0.6	0.6

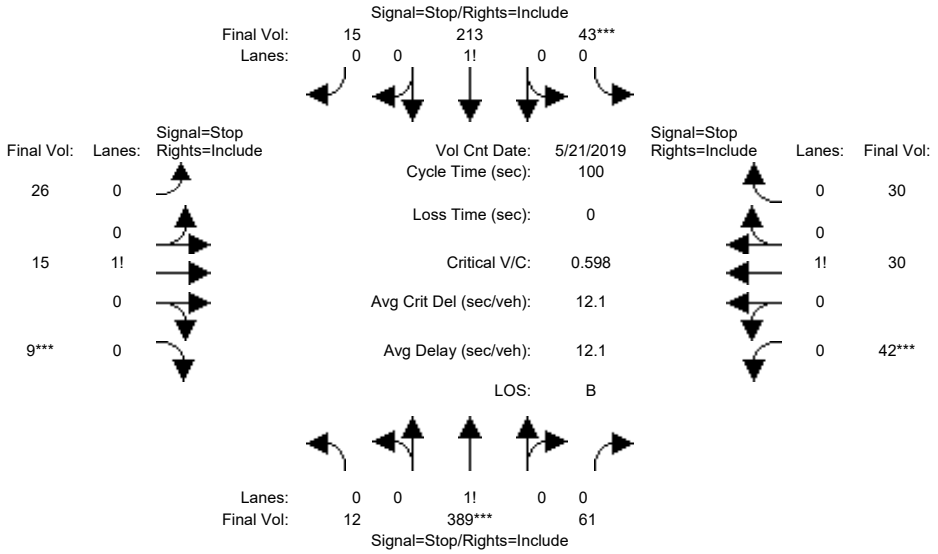
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj No Loop Rd PM

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 21 May 2019 <<												
Base Vol:	12	389	38	20	213	15	26	9	9	12	18	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:	12	389	38	20	213	15	26	9	9	12	18	9
Added Vol:	0	0	23	23	0	0	0	6	0	30	12	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	389	61	43	213	15	26	15	9	42	30	30
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:	12	389	61	43	213	15	26	15	9	42	30	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	389	61	43	213	15	26	15	9	42	30	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	389	61	43	213	15	26	15	9	42	30	30
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.84	0.13	0.16	0.79	0.05	0.52	0.30	0.18	0.42	0.29	0.29
Final Sat.:	20	650	102	114	565	40	289	167	100	242	173	173
Capacity Analysis Module:												
Vol/Sat:	0.60	0.60	0.60	0.38	0.38	0.38	0.09	0.09	0.09	0.17	0.17	0.17
Crit Moves:		****			****				****	****		
Delay/Veh:	13.8	13.8	13.8	10.6	10.6	10.6	9.2	9.2	9.2	9.5	9.5	9.5
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
AdjDel/Veh:	13.8	13.8	13.8	10.6	10.6	10.6	9.2	9.2	9.2	9.5	9.5	9.5
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:		13.8			10.6			9.2			9.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		13.8			10.6			9.2			9.5	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	1.3	1.3	1.3	0.5	0.5	0.5	0.1	0.1	0.1	0.2	0.2	0.2

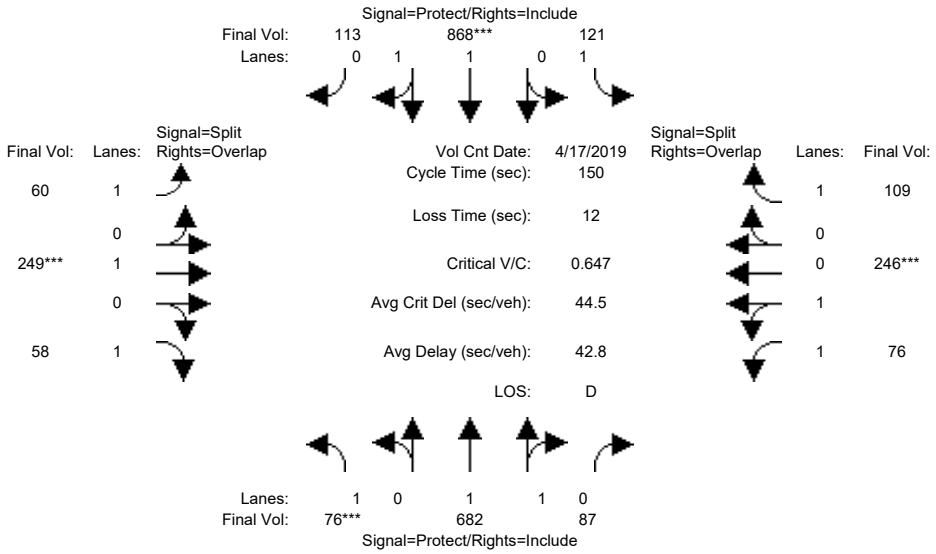
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Proj with Loop Rd AM

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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	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: >> Count Date: 17 Apr 2019 <<												
Base Vol:	76	677	87	154	862	113	60	219	58	76	221	130
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	677	87	154	862	113	60	219	58	76	221	130
Added Vol:	0	5	0	2	6	0	0	30	0	0	25	2
Diverted Tr:	0	0	0	-35	0	0	0	0	0	0	0	-23
Initial Fut:	76	682	87	121	868	113	60	249	58	76	246	109
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	682	87	121	868	113	60	249	58	76	246	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	682	87	121	868	113	60	249	58	76	246	109
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	682	87	121	868	113	60	249	58	76	246	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.91	0.92	0.91	0.91	0.93	0.98	0.83	0.97	0.97	0.83
Lanes:	1.00	1.77	0.23	1.00	1.77	0.23	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1753	3056	390	1753	3049	397	1769	1862	1583	1840	1840	1583
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.22	0.07	0.28	0.28	0.03	0.13	0.04	0.04	0.13	0.07
Crit Moves:	****				****			****			****	
Green/Cycle:	0.07	0.39	0.39	0.12	0.44	0.44	0.21	0.21	0.27	0.21	0.21	0.33
Volume/Cap:	0.65	0.58	0.58	0.58	0.65	0.65	0.16	0.65	0.13	0.20	0.65	0.21
Delay/Veh:	80.2	36.9	36.9	66.3	33.9	33.9	49.1	58.3	41.2	49.3	57.5	36.8
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:	80.2	36.9	36.9	66.3	33.9	33.9	49.1	58.3	41.2	49.3	57.5	36.8
LOS by Move:	F	D	D	E	C	C	D	E	D	D	E	D
HCM2kAvgQ:	5	15	15	6	19	19	2	11	2	3	11	4

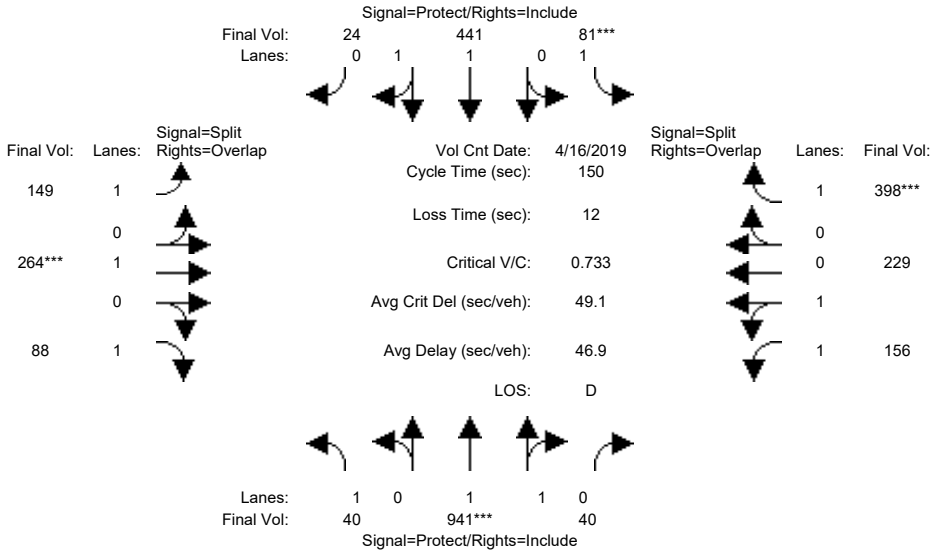
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Proj with Loop Rd PM

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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	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: >> Count Date: 16 Apr 2019 <<												
Base Vol:	40	938	40	105	439	24	149	252	88	156	214	463
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:	40	938	40	105	439	24	149	252	88	156	214	463
Added Vol:	0	3	0	1	2	0	0	12	0	0	15	1
Diverted Tr:	0	0	0	-25	0	0	0	0	0	0	0	-66
Initial Fut:	40	941	40	81	441	24	149	264	88	156	229	398
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:	40	941	40	81	441	24	149	264	88	156	229	398
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	941	40	81	441	24	149	264	88	156	229	398
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:	40	941	40	81	441	24	149	264	88	156	229	398
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.98	0.83	0.96	0.96	0.83
Lanes:	1.00	1.92	0.08	1.00	1.90	0.10	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1753	3342	142	1753	3298	179	1769	1862	1583	1825	1825	1583
Capacity Analysis Module:												
Vol/Sat:	0.02	0.28	0.28	0.05	0.13	0.13	0.08	0.14	0.06	0.09	0.13	0.25
Crit Moves:		****		****				****				****
Green/Cycle:	0.12	0.38	0.38	0.06	0.33	0.33	0.19	0.19	0.31	0.28	0.28	0.34
Volume/Cap:	0.20	0.73	0.73	0.73	0.40	0.40	0.44	0.73	0.18	0.31	0.45	0.73
Delay/Veh:	60.5	41.8	41.8	91.2	39.0	39.0	54.2	64.5	38.1	42.7	44.9	48.5
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:	60.5	41.8	41.8	91.2	39.0	39.0	54.2	64.5	38.1	42.7	44.9	48.5
LOS by Move:	E	D	D	F	D	D	D	E	D	D	D	D
HCM2kAvgQ:	2	21	21	5	9	9	6	13	3	6	9	17

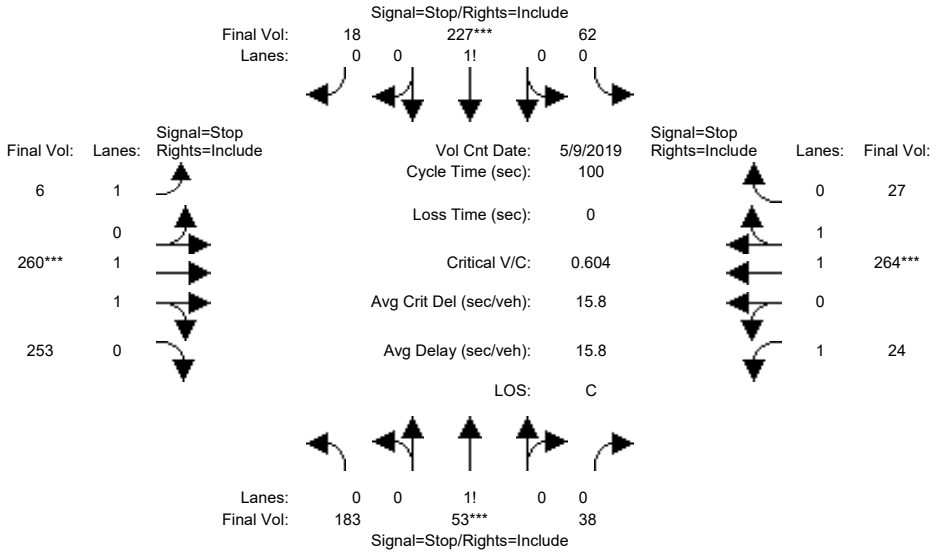
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj with Loop Rd AM

Intersection #21: Clarke Avenue and Bay Road



Street Name:	Clarke Ave						Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	164	43	38	97	212	18	6	293	223	24	279	30
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:	164	43	38	97	212	18	6	293	223	24	279	30
Added Vol:	19	10	0	0	15	0	0	2	30	0	8	3
Diverted Tr:	0	0	0	-35	0	0	0	-35	0	0	-23	-6
Initial Fut:	183	53	38	62	227	18	6	260	253	24	264	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	183	53	38	62	227	18	6	260	253	24	264	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	53	38	62	227	18	6	260	253	24	264	27
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:	183	53	38	62	227	18	6	260	253	24	264	27
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.67	0.19	0.14	0.20	0.74	0.06	1.00	1.01	0.99	1.00	1.81	0.19
Final Sat.:	331	96	69	103	376	30	464	504	542	436	850	88
Capacity Analysis Module:												
Vol/Sat:	0.55	0.55	0.55	0.60	0.60	0.60	0.01	0.52	0.47	0.06	0.31	0.31
Crit Moves:		****			****			****			****	
Delay/Veh:	17.2	17.2	17.2	18.5	18.5	18.5	10.3	16.5	14.1	10.9	12.9	12.7
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
AdjDel/Veh:	17.2	17.2	17.2	18.5	18.5	18.5	10.3	16.5	14.1	10.9	12.9	12.7
LOS by Move:	C	C	C	C	C	C	B	C	B	B	B	B
ApproachDel:		17.2			18.5			15.2			12.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		17.2			18.5			15.2			12.7	
LOS by Appr:		C			C			C			B	
AllWayAvgQ:	1.0	1.0	1.0	1.2	1.2	1.2	0.0	0.9	0.8	0.1	0.4	0.4

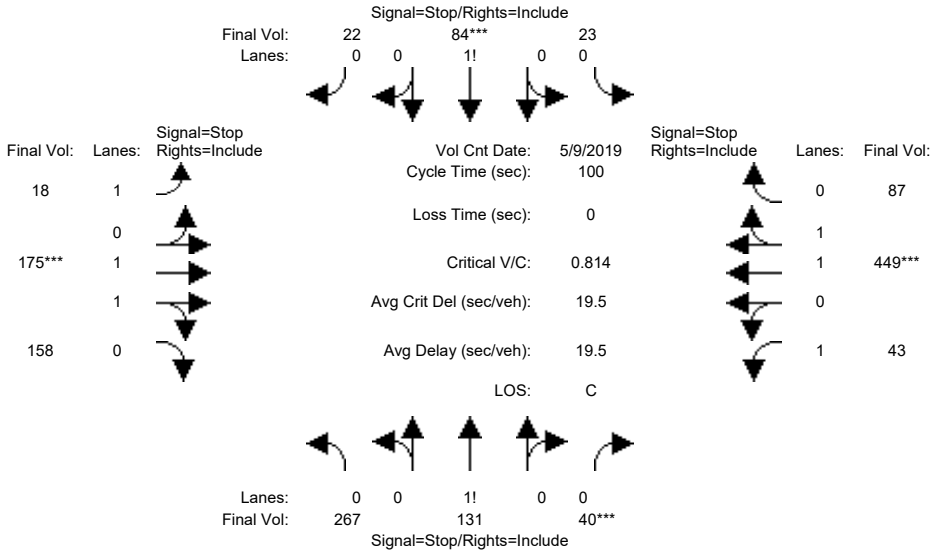
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing + Proj with Loop Rd PM

Intersection #21: Clarke Avenue and Bay Road



Street Name:	Clarke Ave						Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module: >> Count Date: 9 May 2019 <<												
Base Vol:	256	125	40	29	78	22	18	199	146	43	511	94
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:	256	125	40	29	78	22	18	199	146	43	511	94
Added Vol:	11	6	0	0	6	0	0	1	12	0	4	2
Diverted Tr:	0	0	0	-6	0	0	0	-25	0	0	-66	-9
Initial Fut:	267	131	40	23	84	22	18	175	158	43	449	87
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:	267	131	40	23	84	22	18	175	158	43	449	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	131	40	23	84	22	18	175	158	43	449	87
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:	267	131	40	23	84	22	18	175	158	43	449	87
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.61	0.30	0.09	0.18	0.65	0.17	1.00	1.05	0.95	1.00	1.68	0.32
Final Sat.:	328	161	49	80	291	76	437	492	484	465	848	167
Capacity Analysis Module:												
Vol/Sat:	0.81	0.81	0.81	0.29	0.29	0.29	0.04	0.36	0.33	0.09	0.53	0.52
Crit Moves:			****		****			****			****	
Delay/Veh:	30.9	30.9	30.9	12.9	12.9	12.9	10.9	13.8	12.4	11.0	16.8	16.3
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
AdjDel/Veh:	30.9	30.9	30.9	12.9	12.9	12.9	10.9	13.8	12.4	11.0	16.8	16.3
LOS by Move:	D	D	D	B	B	B	B	B	B	B	C	C
ApproachDel:		30.9			12.9			13.0			16.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		30.9			12.9			13.0			16.3	
LOS by Appr:		D			B			B			C	
AllWayAvgQ:	3.2	3.2	3.2	0.3	0.3	0.3	0.0	0.5	0.4	0.1	1.0	1.0

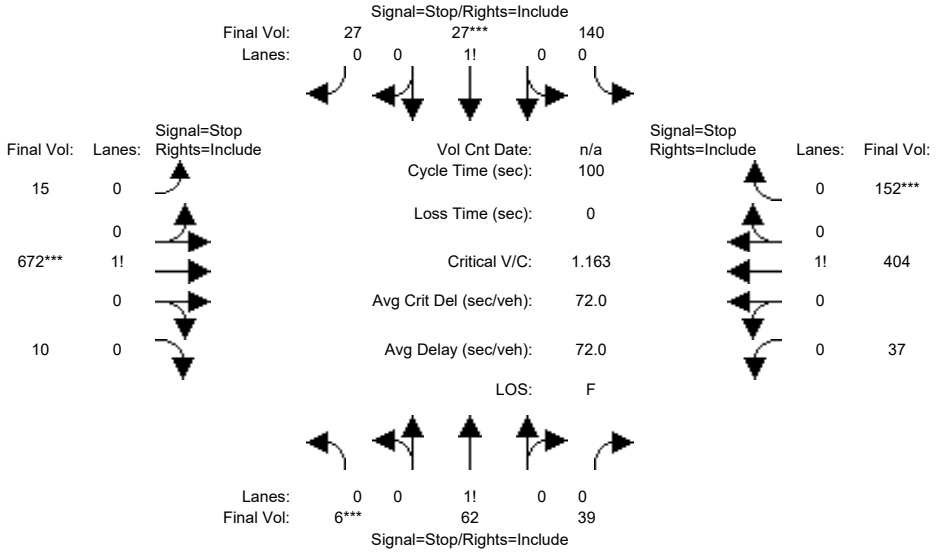
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	6	62	39	140	27	27	15	672	10	37	404	152
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:	6	62	39	140	27	27	15	672	10	37	404	152
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	62	39	140	27	27	15	672	10	37	404	152
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:	6	62	39	140	27	27	15	672	10	37	404	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	62	39	140	27	27	15	672	10	37	404	152
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:	6	62	39	140	27	27	15	672	10	37	404	152
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.58	0.36	0.72	0.14	0.14	0.02	0.97	0.01	0.06	0.68	0.26
Final Sat.:	26	268	169	346	67	67	13	578	9	38	415	156
Capacity Analysis Module:												
Vol/Sat:	0.23	0.23	0.23	0.41	0.41	0.41	1.16	1.16	1.16	0.97	0.97	0.97
Crit Moves:	****			****			****			****		
Delay/Veh:	12.6	12.6	12.6	15.2	15.2	15.2	112.5	112	112.5	53.7	53.7	53.7
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
AdjDel/Veh:	12.6	12.6	12.6	15.2	15.2	15.2	112.5	112	112.5	53.7	53.7	53.7
LOS by Move:	B	B	B	C	C	C	F	F	F	F	F	F
ApproachDel:	12.6			15.2			112.5			53.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.6			15.2			112.5			53.7		
LOS by Appr:	B			C			F			F		
AllWayAvgQ:	0.3	0.3	0.3	0.6	0.6	0.6	17.2	17.2	17.2	7.6	7.6	7.6

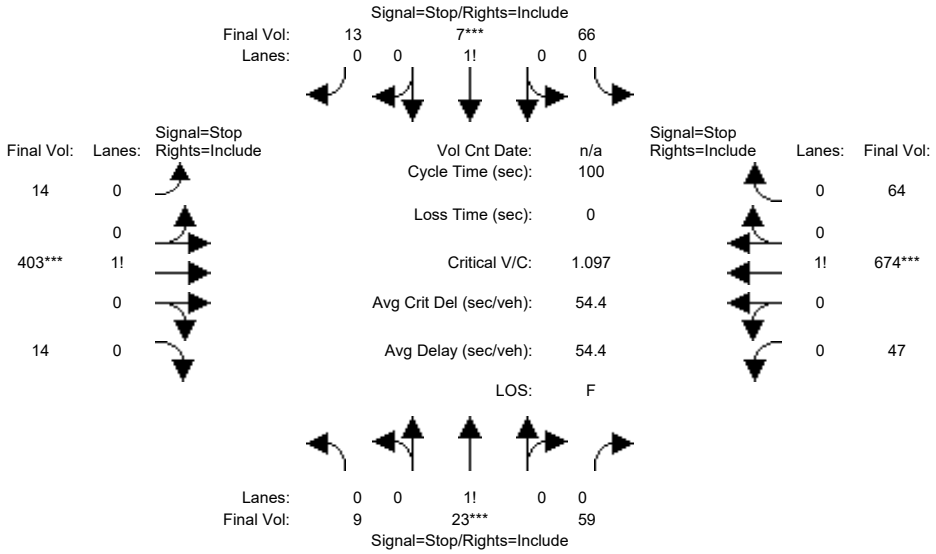
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	9	23	59	66	7	13	14	403	14	47	674	64
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:	9	23	59	66	7	13	14	403	14	47	674	64
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	23	59	66	7	13	14	403	14	47	674	64
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:	9	23	59	66	7	13	14	403	14	47	674	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	23	59	66	7	13	14	403	14	47	674	64
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:	9	23	59	66	7	13	14	403	14	47	674	64
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.25	0.65	0.77	0.08	0.15	0.03	0.94	0.03	0.06	0.86	0.08
Final Sat.:	52	134	344	382	41	75	22	619	22	43	614	58
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.17	0.17	0.17	0.65	0.65	0.65	1.10	1.10	1.10
Crit Moves:	****			****			****			****		
Delay/Veh:	10.6	10.6	10.6	11.1	11.1	11.1	17.6	17.6	17.6	84.4	84.4	84.4
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
AdjDel/Veh:	10.6	10.6	10.6	11.1	11.1	11.1	17.6	17.6	17.6	84.4	84.4	84.4
LOS by Move:	B	B	B	B	B	B	C	C	C	F	F	F
ApproachDel:	10.6			11.1			17.6			84.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.6			11.1			17.6			84.4		
LOS by Appr:	B			B			C			F		
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	1.7	1.7	1.7	15.2	15.2	15.2

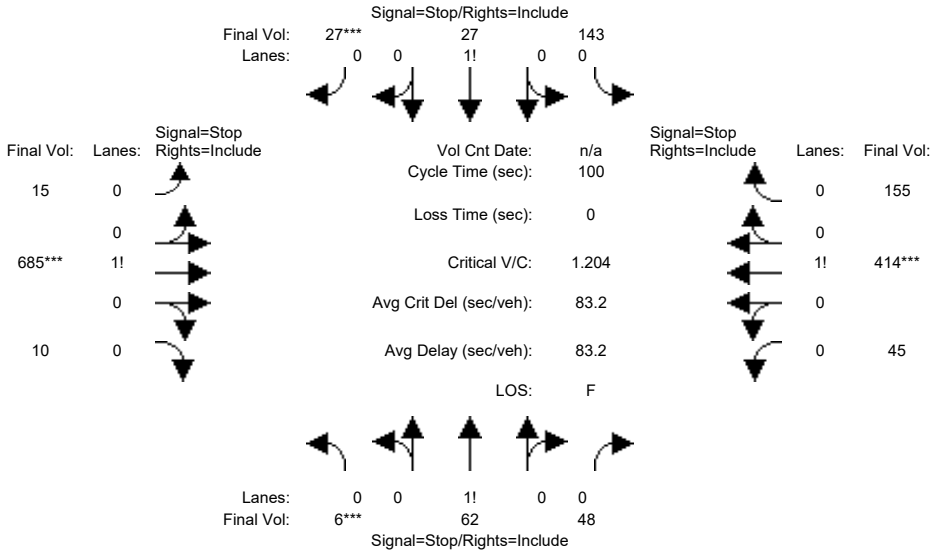
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	6	62	39	140	27	27	15	672	10	37	404	152
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:	6	62	39	140	27	27	15	672	10	37	404	152
Added Vol:	0	0	9	3	0	0	0	13	0	8	10	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	62	48	143	27	27	15	685	10	45	414	155
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:	6	62	48	143	27	27	15	685	10	45	414	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	62	48	143	27	27	15	685	10	45	414	155
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:	6	62	48	143	27	27	15	685	10	45	414	155
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.54	0.41	0.72	0.14	0.14	0.02	0.97	0.01	0.07	0.68	0.25
Final Sat.:	24	248	192	345	65	65	12	569	8	44	406	152
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.25	0.41	0.41	0.41	1.20	1.20	1.20	1.02	1.02	1.02
Crit Moves:	****					****		****			****	
Delay/Veh:	12.9	12.9	12.9	15.5	15.5	15.5	128.6	129	128.6	65.6	65.6	65.6
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
AdjDel/Veh:	12.9	12.9	12.9	15.5	15.5	15.5	128.6	129	128.6	65.6	65.6	65.6
LOS by Move:	B	B	B	C	C	C	F	F	F	F	F	F
ApproachDel:	12.9			15.5			128.6			65.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.9			15.5			128.6			65.6		
LOS by Appr:	B			C			F			F		
AllWayAvgQ:	0.3	0.3	0.3	0.7	0.7	0.7	19.6	19.6	19.6	9.5	9.5	9.5

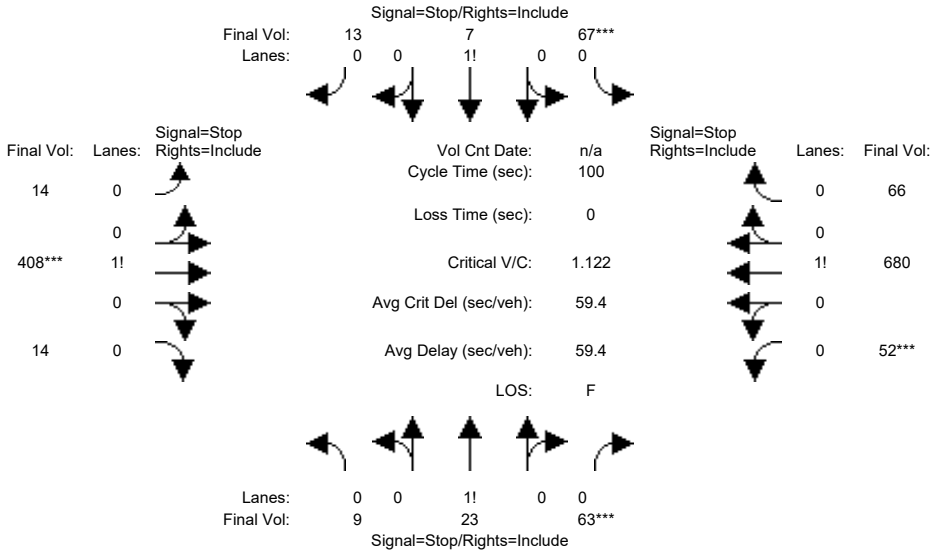
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #4: Bay Rd/Ralmar Ave and Newbridge St



Street Name:	Ralmar Ave/Bay Rd						Newbridge St/Bay Rd					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	9	23	59	66	7	13	14	403	14	47	674	64
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:	9	23	59	66	7	13	14	403	14	47	674	64
Added Vol:	0	0	4	1	0	0	0	5	0	5	6	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	23	63	67	7	13	14	408	14	52	680	66
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:	9	23	63	67	7	13	14	408	14	52	680	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	23	63	67	7	13	14	408	14	52	680	66
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:	9	23	63	67	7	13	14	408	14	52	680	66
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.24	0.67	0.77	0.08	0.15	0.03	0.94	0.03	0.07	0.85	0.08
Final Sat.:	50	128	351	381	40	74	21	618	21	46	606	59
Capacity Analysis Module:												
Vol/Sat:	0.18	0.18	0.18	0.18	0.18	0.18	0.66	0.66	0.66	1.12	1.12	1.12
Crit Moves:			****	****				****		****		
Delay/Veh:	10.7	10.7	10.7	11.2	11.2	11.2	18.0	18.0	18.0	93.1	93.1	93.1
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
AdjDel/Veh:	10.7	10.7	10.7	11.2	11.2	11.2	18.0	18.0	18.0	93.1	93.1	93.1
LOS by Move:	B	B	B	B	B	B	C	C	C	F	F	F
ApproachDel:	10.7			11.2			18.0			93.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.7			11.2			18.0			93.1		
LOS by Appr:	B			B			C			F		
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	1.8	1.8	1.8	16.8	16.8	16.8

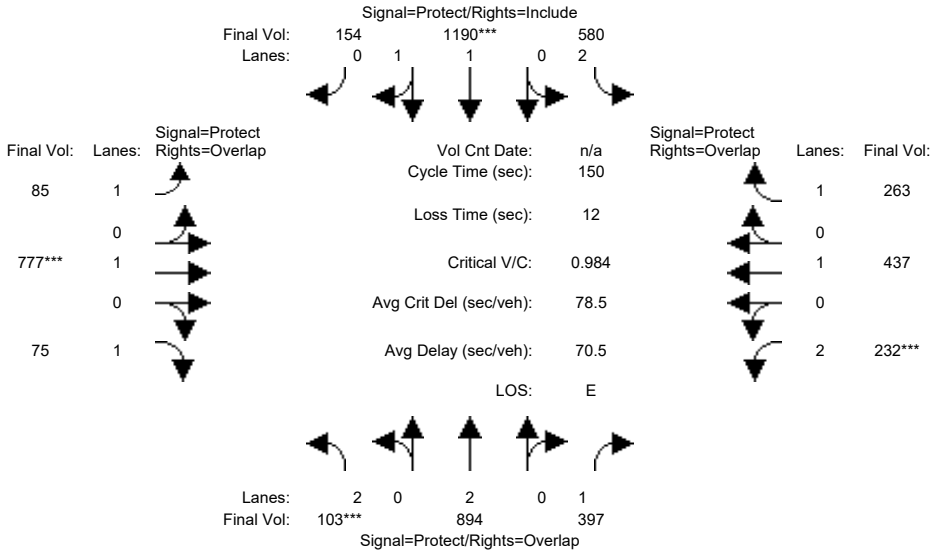
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #11: University Avenue and Bay Road



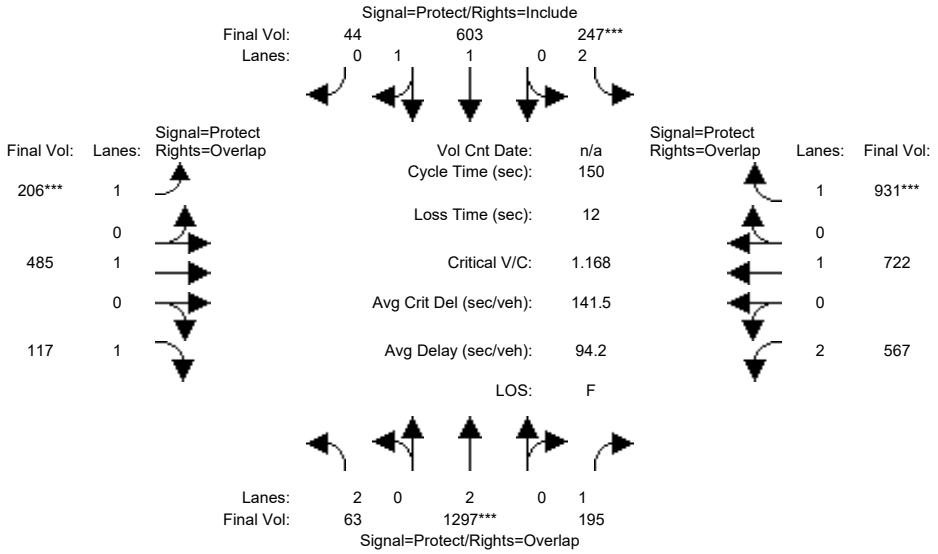

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Street Name:       University Avenue                  Bay Road
Approach:      North Bound     South Bound      East Bound      West Bound
Movement:    L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
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:     103  894   397   580 1190   154    85  777    75   232  437   263
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:  103  894   397   580 1190   154    85  777    75   232  437   263
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  103  894   397   580 1190   154    85  777    75   232  437   263
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:   103  894   397   580 1190   154    85  777    75   232  437   263
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  103  894   397   580 1190   154    85  777    75   232  437   263
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:  103  894   397   580 1190   154    85  777    75   232  437   263
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.89 0.92  0.83  0.89 0.91  0.91  0.93 0.98  0.83  0.90 0.98  0.83
Lanes:       2.00 2.00  1.00  2.00 1.77  0.23  1.00 1.00  1.00  2.00 1.00  1.00
Final Sat.:  3400 3505  1568  3400 3051   395  1769 1862  1583  3432 1862  1583
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.26  0.25  0.17 0.39  0.39  0.05 0.42  0.05  0.07 0.23  0.17
Crit Moves:  ****               ****           ****        ****
Green/Cycle: 0.05 0.26  0.33  0.17 0.39  0.39  0.08 0.42  0.46  0.07 0.40  0.58
Volume/Cap:  0.65 0.98  0.77  0.98 1.00  1.00  0.58 1.00  0.10  1.00 0.58  0.29
Delay/Veh:   79.4 78.9  52.2  92.4 70.8  70.8  72.3 76.5  22.7 129.6 36.3  16.3
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:  79.4 78.9  52.2  92.4 70.8  70.8  72.3 76.5  22.7 129.6 36.3  16.3
LOS by Move:    E    E     D     F    E     E     E    E     C     F    D     B
HCM2kAvgQ:      4   26    18    18   39    39     5   42     2     9   16     6
Note: Queue reported is the number of cars per lane.
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City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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:	63	1297	195	247	603	44	206	485	117	567	722	931
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:	63	1297	195	247	603	44	206	485	117	567	722	931
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	1297	195	247	603	44	206	485	117	567	722	931
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:	63	1297	195	247	603	44	206	485	117	567	722	931
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1297	195	247	603	44	206	485	117	567	722	931
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:	63	1297	195	247	603	44	206	485	117	567	722	931
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.92	0.83	0.89	0.91	0.91	0.93	0.98	0.83	0.90	0.98	0.83
Lanes:	2.00	2.00	1.00	2.00	1.86	0.14	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3400	3505	1568	3400	3234	236	1769	1862	1583	3432	1862	1583
Capacity Analysis Module:												
Vol/Sat:	0.02	0.37	0.12	0.07	0.19	0.19	0.12	0.26	0.07	0.17	0.39	0.59
Crit Moves:		****			****			****			****	
Green/Cycle:	0.08	0.32	0.53	0.06	0.30	0.30	0.10	0.33	0.41	0.21	0.44	0.50
Volume/Cap:	0.24	1.17	0.24	1.17	0.62	0.62	1.17	0.79	0.18	0.79	0.88	1.17
Delay/Veh:	65.8	137	19.3	185.0	45.9	45.9	187.8	52.0	28.6	61.8	48.9	126.2
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:	65.8	137	19.3	185.0	45.9	45.9	187.8	52.0	28.6	61.8	48.9	126.2
LOS by Move:	E	F	B	F	D	D	F	D	C	E	D	F
HCM2kAvgQ:	2	46	5	11	14	14	16	21	3	14	33	61

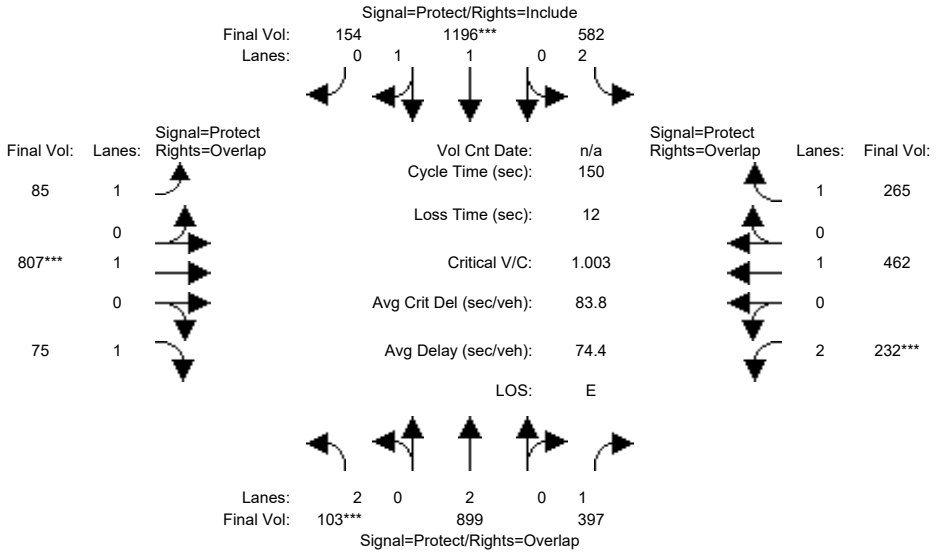
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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:	103	894	397	580	1190	154	85	777	75	232	437	263
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:	103	894	397	580	1190	154	85	777	75	232	437	263
Added Vol:	0	5	0	2	6	0	0	30	0	0	25	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	899	397	582	1196	154	85	807	75	232	462	265
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:	103	899	397	582	1196	154	85	807	75	232	462	265
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	899	397	582	1196	154	85	807	75	232	462	265
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:	103	899	397	582	1196	154	85	807	75	232	462	265
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.92	0.83	0.89	0.91	0.91	0.93	0.98	0.83	0.90	0.98	0.83
Lanes:	2.00	2.00	1.00	2.00	1.77	0.23	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3400	3505	1568	3400	3053	393	1769	1862	1583	3432	1862	1583
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.25	0.17	0.39	0.39	0.05	0.43	0.05	0.07	0.25	0.17
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.26	0.32	0.17	0.38	0.38	0.08	0.42	0.47	0.07	0.41	0.58
Volume/Cap:	0.65	0.99	0.78	0.99	1.02	1.02	0.60	1.02	0.10	1.02	0.60	0.29
Delay/Veh:	79.4	84.1	53.6	97.8	76.8	76.8	74.0	81.0	22.1	135.7	36.0	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:	79.4	84.1	53.6	97.8	76.8	76.8	74.0	81.0	22.1	135.7	36.0	15.9
LOS by Move:	E	F	D	F	E	E	E	F	C	F	D	B
HCM2kAvgQ:	4	27	18	19	40	40	5	45	2	9	17	6

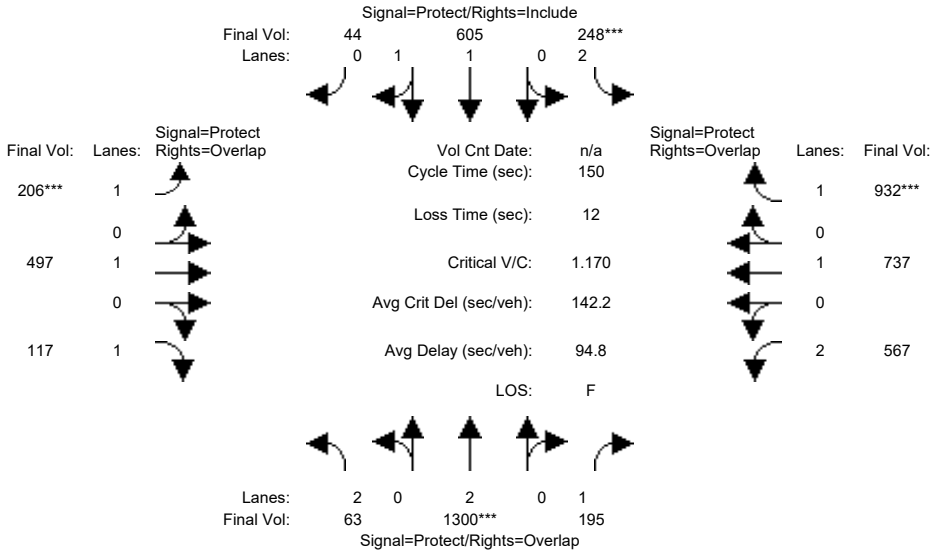
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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:	63	1297	195	247	603	44	206	485	117	567	722	931
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:	63	1297	195	247	603	44	206	485	117	567	722	931
Added Vol:	0	3	0	1	2	0	0	12	0	0	15	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	1300	195	248	605	44	206	497	117	567	737	932
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:	63	1300	195	248	605	44	206	497	117	567	737	932
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1300	195	248	605	44	206	497	117	567	737	932
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:	63	1300	195	248	605	44	206	497	117	567	737	932
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.92	0.83	0.89	0.91	0.91	0.93	0.98	0.83	0.90	0.98	0.83
Lanes:	2.00	2.00	1.00	2.00	1.86	0.14	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3400	3505	1568	3400	3235	235	1769	1862	1583	3432	1862	1583
Capacity Analysis Module:												
Vol/Sat:	0.02	0.37	0.12	0.07	0.19	0.19	0.12	0.27	0.07	0.17	0.40	0.59
Crit Moves:		****			****			****				****
Green/Cycle:	0.08	0.32	0.52	0.06	0.30	0.30	0.10	0.33	0.41	0.21	0.44	0.50
Volume/Cap:	0.24	1.17	0.24	1.17	0.62	0.62	1.17	0.80	0.18	0.80	0.90	1.17
Delay/Veh:	65.8	138	19.6	185.5	45.8	45.8	188.4	52.6	28.4	63.0	51.4	126.9
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:	65.8	138	19.6	185.5	45.8	45.8	188.4	52.6	28.4	63.0	51.4	126.9
LOS by Move:	E	F	B	F	D	D	F	D	C	E	D	F
HCM2kAvgQ:	2	46	5	11	14	14	16	22	3	15	34	61

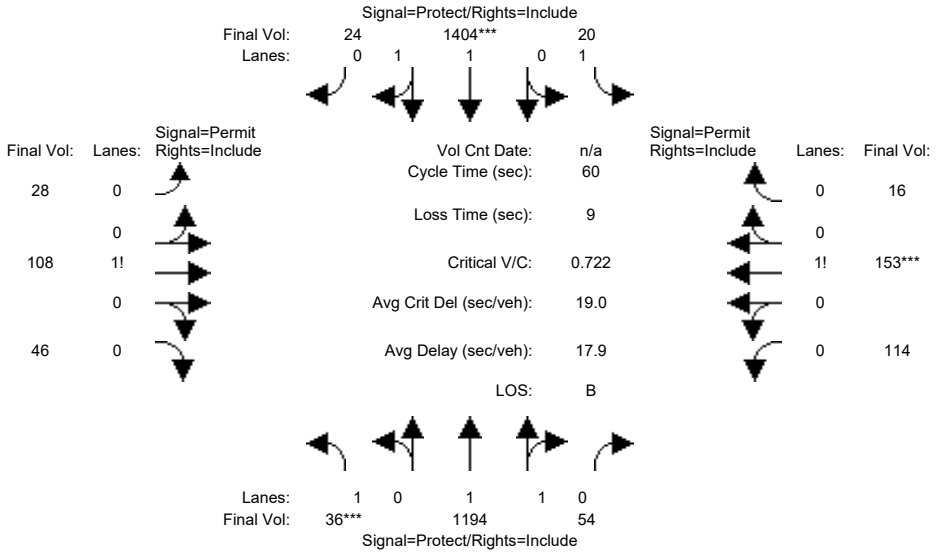
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #13: University Avenue and Bell Street



Street Name:	University Avenue						Bell Street					
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	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:	36	1194	54	20	1404	24	28	108	46	114	153	16
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	1194	54	20	1404	24	28	108	46	114	153	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	1194	54	20	1404	24	28	108	46	114	153	16
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	1194	54	20	1404	24	28	108	46	114	153	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	1194	54	20	1404	24	28	108	46	114	153	16
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	1194	54	20	1404	24	28	108	46	114	153	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.90	0.90	0.90	0.76	0.76	0.76
Lanes:	1.00	1.91	0.09	1.00	1.97	0.03	0.15	0.60	0.25	0.40	0.54	0.06
Final Sat.:	1805	3433	155	1805	3539	60	263	1015	432	579	777	81
Capacity Analysis Module:												
Vol/Sat:	0.02	0.35	0.35	0.01	0.40	0.40	0.11	0.11	0.11	0.20	0.20	0.20
Crit Moves:	****			****						****		
Green/Cycle:	0.12	0.45	0.45	0.15	0.49	0.49	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.17	0.77	0.77	0.07	0.81	0.81	0.44	0.44	0.44	0.81	0.81	0.81
Delay/Veh:	24.3	15.9	15.9	21.9	15.8	15.8	20.0	20.0	20.0	34.6	34.6	34.6
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:	24.3	15.9	15.9	21.9	15.8	15.8	20.0	20.0	20.0	34.6	34.6	34.6
LOS by Move:	C	B	B	C	B	B	B	B	B	C	C	C
HCM2kAvgQ:	1	10	10	0	12	12	3	3	3	8	8	8

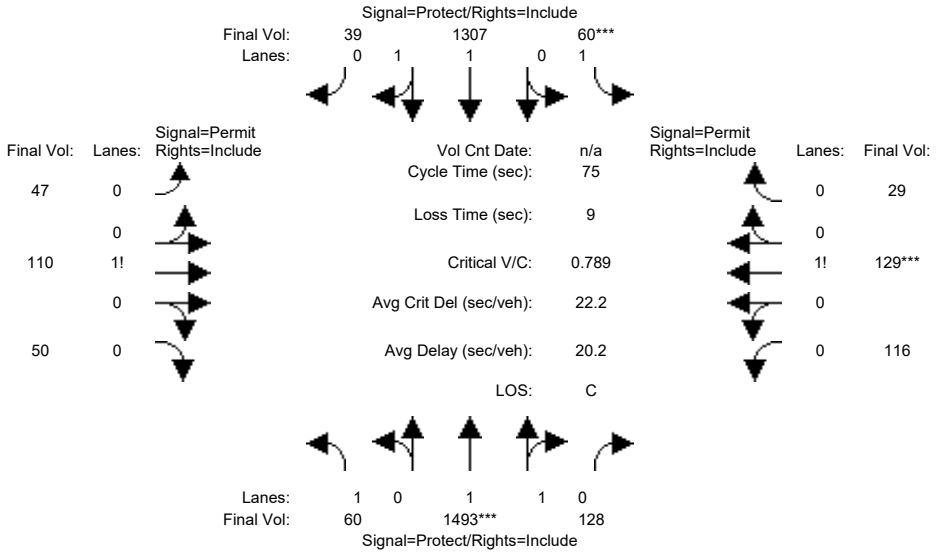
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #13: University Avenue and Bell Street



Street Name:	University Avenue						Bell Street					
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	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:	60	1493	128	60	1307	39	47	110	50	116	129	29
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:	60	1493	128	60	1307	39	47	110	50	116	129	29
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1493	128	60	1307	39	47	110	50	116	129	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	1493	128	60	1307	39	47	110	50	116	129	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1493	128	60	1307	39	47	110	50	116	129	29
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:	60	1493	128	60	1307	39	47	110	50	116	129	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.84	0.84	0.84	0.70	0.70	0.70
Lanes:	1.00	1.84	0.16	1.00	1.94	0.06	0.23	0.53	0.24	0.42	0.47	0.11
Final Sat.:	1805	3285	282	1805	3491	104	364	851	387	561	624	140
Capacity Analysis Module:												
Vol/Sat:	0.03	0.45	0.45	0.03	0.37	0.37	0.13	0.13	0.13	0.21	0.21	0.21
Crit Moves:		****			****						****	
Green/Cycle:	0.13	0.54	0.54	0.09	0.51	0.51	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.26	0.84	0.84	0.36	0.74	0.74	0.53	0.53	0.53	0.84	0.84	0.84
Delay/Veh:	30.2	18.0	18.0	33.2	16.2	16.2	25.8	25.8	25.8	44.3	44.3	44.3
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:	30.2	18.0	18.0	33.2	16.2	16.2	25.8	25.8	25.8	44.3	44.3	44.3
LOS by Move:	C	B	B	C	B	B	C	C	C	D	D	D
HCM2kAvgQ:	1	17	17	1	13	13	5	5	5	9	9	9

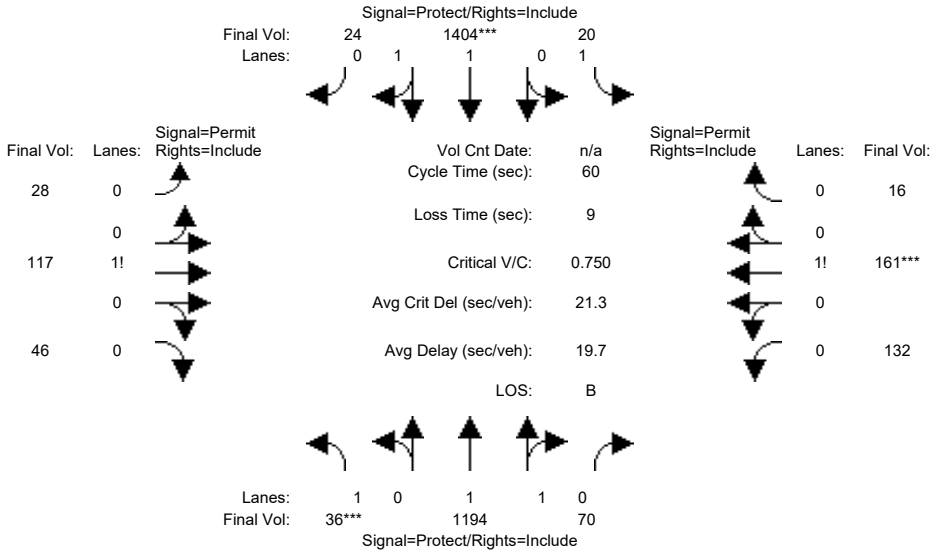
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Intersection #13: University Avenue and Bell Street



Street Name:	University Avenue						Bell Street					
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	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:	36	1194	54	20	1404	24	28	108	46	114	153	16
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	1194	54	20	1404	24	28	108	46	114	153	16
Added Vol:	0	0	16	0	0	0	0	9	0	18	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	1194	70	20	1404	24	28	117	46	132	161	16
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	1194	70	20	1404	24	28	117	46	132	161	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	1194	70	20	1404	24	28	117	46	132	161	16
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	1194	70	20	1404	24	28	117	46	132	161	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.95	0.90	0.90	0.90	0.74	0.74	0.74
Lanes:	1.00	1.89	0.11	1.00	1.97	0.03	0.15	0.61	0.24	0.43	0.52	0.05
Final Sat.:	1805	3383	198	1805	3539	60	252	1052	414	599	730	73
Capacity Analysis Module:												
Vol/Sat:	0.02	0.35	0.35	0.01	0.40	0.40	0.11	0.11	0.11	0.22	0.22	0.22
Crit Moves:	****			****						****		
Green/Cycle:	0.12	0.44	0.44	0.15	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.17	0.80	0.80	0.08	0.84	0.84	0.42	0.42	0.42	0.84	0.84	0.84
Delay/Veh:	24.3	17.4	17.4	22.2	17.9	17.9	19.0	19.0	19.0	36.9	36.9	36.9
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:	24.3	17.4	17.4	22.2	17.9	17.9	19.0	19.0	19.0	36.9	36.9	36.9
LOS by Move:	C	B	B	C	B	B	B	B	B	D	D	D
HCM2kAvgQ:	1	10	10	0	12	12	3	3	3	8	8	8

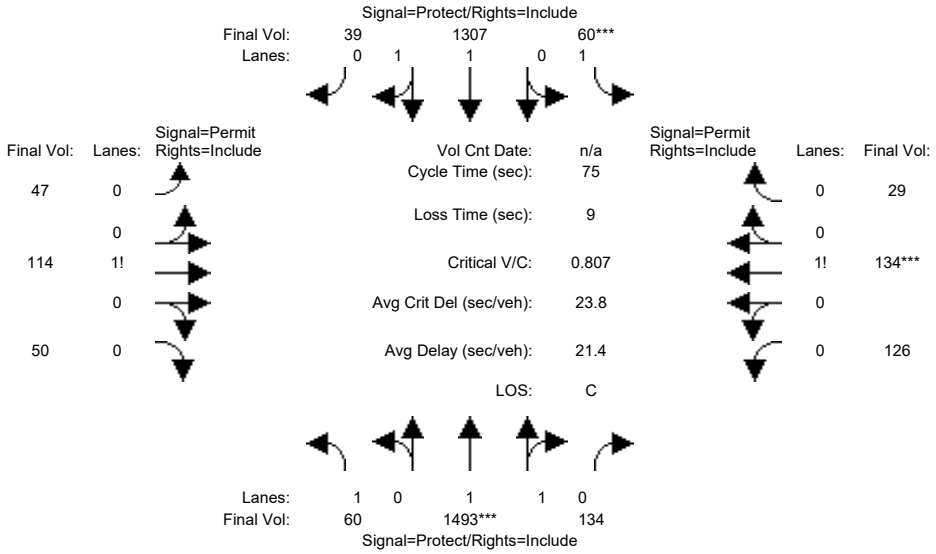
Note: Queue reported is the number of cars per lane.

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City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #13: University Avenue and Bell Street



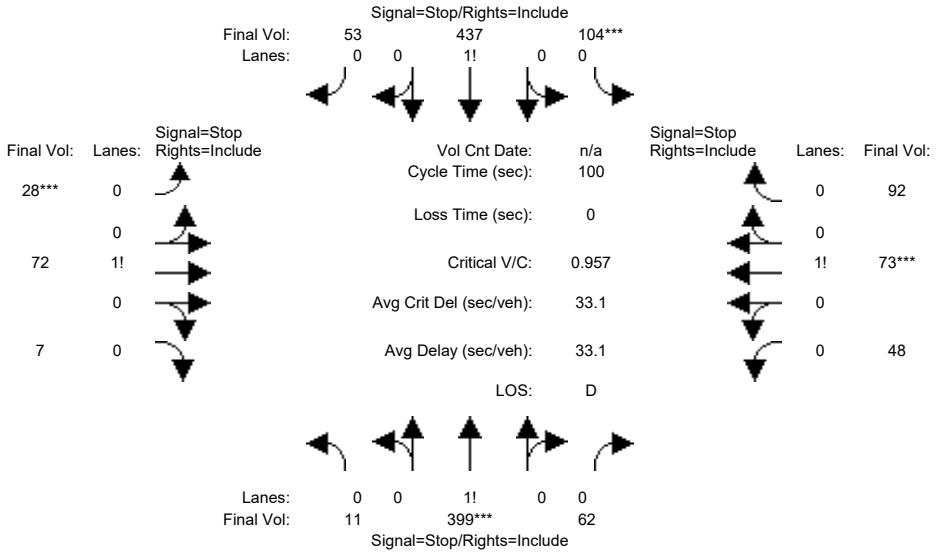

```
Street Name:       University Avenue                Bell Street
Approach:     North Bound     South Bound      East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10    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:      60 1493   128    60 1307    39    47  110    50   116  129    29
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:   60 1493   128    60 1307    39    47  110    50   116  129    29
Added Vol:      0    0     6     0    0     0     0    4     0    10    5     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   60 1493   134    60 1307    39    47  114    50   126  134    29
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    60 1493   134    60 1307    39    47  114    50   126  134    29
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   60 1493   134    60 1307    39    47  114    50   126  134    29
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:   60 1493   134    60 1307    39    47  114    50   126  134    29
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.94  0.94  0.95 0.95  0.95  0.85 0.85  0.85  0.69 0.69  0.69
Lanes:       1.00 1.84  0.16  1.00 1.94  0.06  0.22 0.54  0.24  0.44 0.46  0.10
Final Sat.:  1805 3273   294  1805 3491   104   358  869   381   571  607   131
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.46  0.46  0.03 0.37  0.37  0.13 0.13  0.13  0.22 0.22  0.22
Crit Moves:       ****        ****                          ****
Green/Cycle: 0.12 0.53  0.53  0.09 0.50  0.50  0.26 0.26  0.26  0.26 0.26  0.26
Volume/Cap:  0.27 0.86  0.86  0.36 0.75  0.75  0.51 0.51  0.51  0.86 0.86  0.86
Delay/Veh:   30.4 19.5  19.5  33.2 16.9  16.9  24.9 24.9  24.9  46.2 46.2  46.2
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:  30.4 19.5  19.5  33.2 16.9  16.9  24.9 24.9  24.9  46.2 46.2  46.2
LOS by Move:    C    B     B     C    B     B     C    C     C     D    D     D
HCM2kAvgQ:      1   18    18     1   13    13     5    5     5    10   10    10
Note: Queue reported is the number of cars per lane.
```

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	11	399	62	104	437	53	28	72	7	48	73	92
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:	11	399	62	104	437	53	28	72	7	48	73	92
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	399	62	104	437	53	28	72	7	48	73	92
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:	11	399	62	104	437	53	28	72	7	48	73	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	399	62	104	437	53	28	72	7	48	73	92
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:	11	399	62	104	437	53	28	72	7	48	73	92
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.85	0.13	0.17	0.74	0.09	0.26	0.67	0.07	0.23	0.34	0.43
Final Sat.:	14	503	78	109	456	55	117	300	29	113	171	216
Capacity Analysis Module:												
Vol/Sat:	0.79	0.79	0.79	0.96	0.96	0.96	0.24	0.24	0.24	0.43	0.43	0.43
Crit Moves:		****			****			****			****	
Delay/Veh:	26.3	26.3	26.3	49.1	49.1	49.1	12.4	12.4	12.4	14.2	14.2	14.2
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
AdjDel/Veh:	26.3	26.3	26.3	49.1	49.1	49.1	12.4	12.4	12.4	14.2	14.2	14.2
LOS by Move:	D	D	D	E	E	E	B	B	B	B	B	B
ApproachDel:	26.3			49.1			12.4			14.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	26.3			49.1			12.4			14.2		
LOS by Appr:	D			E			B			B		
AllWayAvgQ:	2.9	2.9	2.9	7.0	7.0	7.0	0.3	0.3	0.3	0.6	0.6	0.6

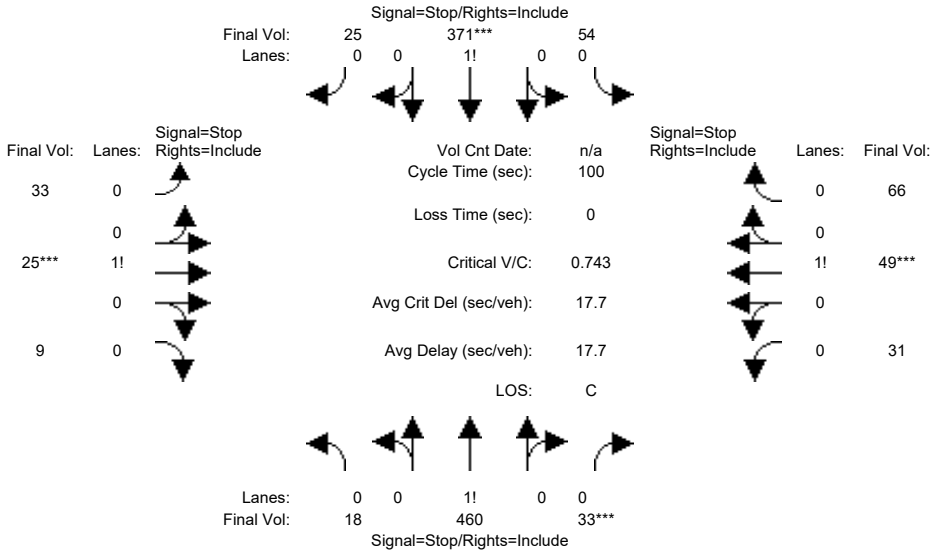
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	18	460	33	54	371	25	33	25	9	31	49	66
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:	18	460	33	54	371	25	33	25	9	31	49	66
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	460	33	54	371	25	33	25	9	31	49	66
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:	18	460	33	54	371	25	33	25	9	31	49	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	460	33	54	371	25	33	25	9	31	49	66
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:	18	460	33	54	371	25	33	25	9	31	49	66
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.90	0.06	0.12	0.82	0.06	0.50	0.37	0.13	0.21	0.34	0.45
Final Sat.:	24	619	44	81	554	37	233	176	64	111	176	237
Capacity Analysis Module:												
Vol/Sat:	0.74	0.74	0.74	0.67	0.67	0.67	0.14	0.14	0.14	0.28	0.28	0.28
Crit Moves:		****			****			****			****	
Delay/Veh:	20.6	20.6	20.6	17.5	17.5	17.5	10.4	10.4	10.4	11.0	11.0	11.0
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
AdjDel/Veh:	20.6	20.6	20.6	17.5	17.5	17.5	10.4	10.4	10.4	11.0	11.0	11.0
LOS by Move:	C	C	C	C	C	C	B	B	B	B	B	B
ApproachDel:	20.6			17.5			10.4			11.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	20.6			17.5			10.4			11.0		
LOS by Appr:	C			C			B			B		
AllWayAvgQ:	2.4	2.4	2.4	1.7	1.7	1.7	0.1	0.1	0.1	0.3	0.3	0.3

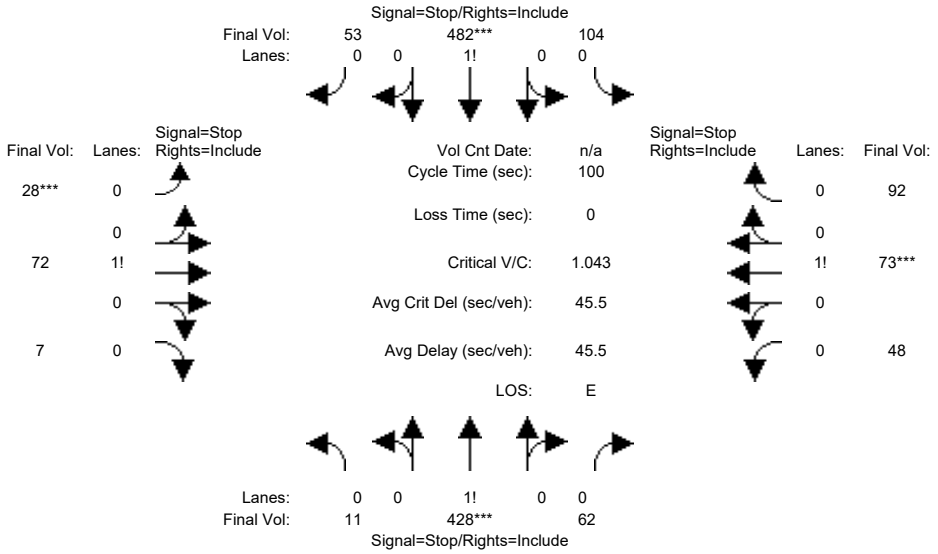
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	11	399	62	104	437	53	28	72	7	48	73	92
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:	11	399	62	104	437	53	28	72	7	48	73	92
Added Vol:	0	29	0	0	45	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	428	62	104	482	53	28	72	7	48	73	92
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:	11	428	62	104	482	53	28	72	7	48	73	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	428	62	104	482	53	28	72	7	48	73	92
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:	11	428	62	104	482	53	28	72	7	48	73	92
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.86	0.12	0.16	0.76	0.08	0.26	0.67	0.07	0.23	0.34	0.43
Final Sat.:	13	509	74	100	462	51	117	301	29	112	170	214
Capacity Analysis Module:												
Vol/Sat:	0.84	0.84	0.84	1.04	1.04	1.04	0.24	0.24	0.24	0.43	0.43	0.43
Crit Moves:	****			****			****			****		
Delay/Veh:	32.1	32.1	32.1	71.9	71.9	71.9	12.7	12.7	12.7	14.6	14.6	14.6
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
AdjDel/Veh:	32.1	32.1	32.1	71.9	71.9	71.9	12.7	12.7	12.7	14.6	14.6	14.6
LOS by Move:	D	D	D	F	F	F	B	B	B	B	B	B
ApproachDel:	32.1			71.9			12.7			14.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	32.1			71.9			12.7			14.6		
LOS by Appr:	D			F			B			B		
AllWayAvgQ:	3.8	3.8	3.8	10.7	10.7	10.7	0.3	0.3	0.3	0.6	0.6	0.6

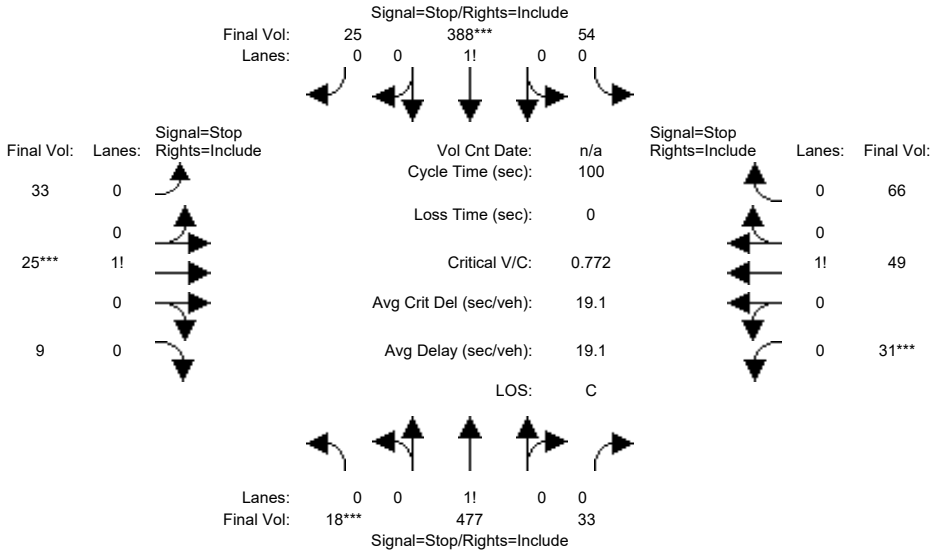
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	18	460	33	54	371	25	33	25	9	31	49	66
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:	18	460	33	54	371	25	33	25	9	31	49	66
Added Vol:	0	17	0	0	17	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	477	33	54	388	25	33	25	9	31	49	66
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:	18	477	33	54	388	25	33	25	9	31	49	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	477	33	54	388	25	33	25	9	31	49	66
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:	18	477	33	54	388	25	33	25	9	31	49	66
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.91	0.06	0.12	0.83	0.05	0.50	0.37	0.13	0.21	0.34	0.45
Final Sat.:	23	618	43	77	556	36	231	175	63	111	175	235
Capacity Analysis Module:												
Vol/Sat:	0.77	0.77	0.77	0.70	0.70	0.70	0.14	0.14	0.14	0.28	0.28	0.28
Crit Moves:	****			****			****			****		
Delay/Veh:	22.5	22.5	22.5	18.8	18.8	18.8	10.5	10.5	10.5	11.2	11.2	11.2
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
AdjDel/Veh:	22.5	22.5	22.5	18.8	18.8	18.8	10.5	10.5	10.5	11.2	11.2	11.2
LOS by Move:	C	C	C	C	C	C	B	B	B	B	B	B
ApproachDel:	22.5			18.8			10.5			11.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	22.5			18.8			10.5			11.2		
LOS by Appr:	C			C			B			B		
AllWayAvgQ:	2.7	2.7	2.7	2.0	2.0	2.0	0.1	0.1	0.1	0.3	0.3	0.3

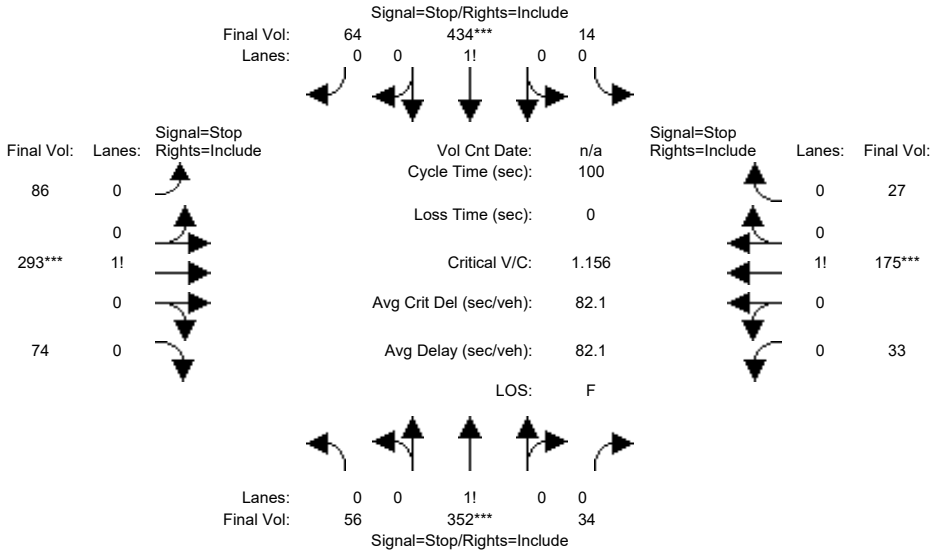
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #23: Clarke Avenue and Runnymede Street



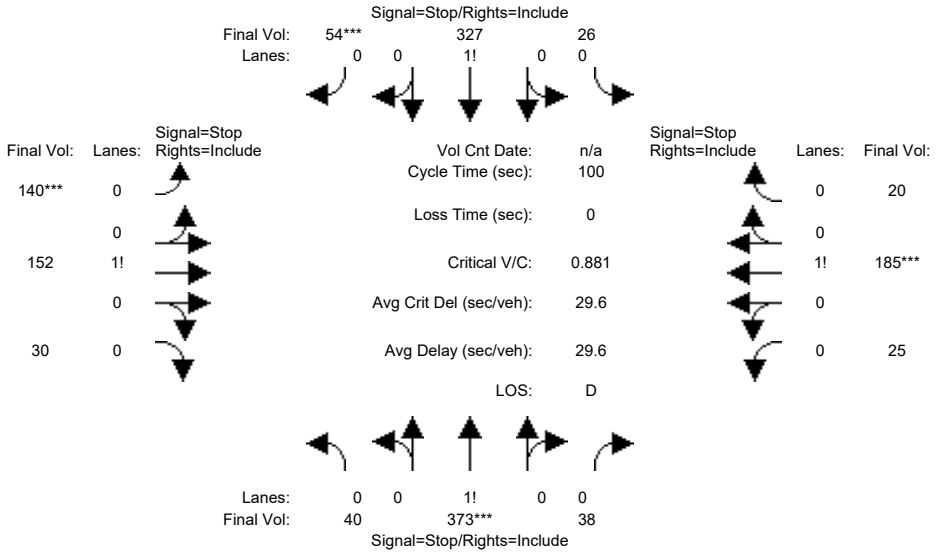

```
Street Name:         Clarke Avenue                 Runnymede Street
Approach:     North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      56  352   34   14  434   64   86  293   74   33  175   27
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:   56  352   34   14  434   64   86  293   74   33  175   27
Added Vol:      0    0    0    0    0    0    0    0    0    0    0    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:   56  352   34   14  434   64   86  293   74   33  175   27
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    56  352   34   14  434   64   86  293   74   33  175   27
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   56  352   34   14  434   64   86  293   74   33  175   27
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:   56  352   34   14  434   64   86  293   74   33  175   27
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:      0.13 0.79  0.08  0.03 0.85  0.12  0.19 0.65  0.16  0.14 0.75  0.11
Final Sat.:    56  351   34   12  375   55   84  286   72   56  295   46
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.00 1.00  1.00  1.16 1.16  1.16  1.02 1.02  1.02  0.59 0.59  0.59
Crit Moves:       ****           ****           ****           ****
Delay/Veh:   72.8 72.8  72.8 120.1  120 120.1  78.0 78.0  78.0  24.5 24.5  24.5
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
AdjDel/Veh:  72.8 72.8  72.8 120.1  120 120.1  78.0 78.0  78.0  24.5 24.5  24.5
LOS by Move:    F    F     F     F    F     F     F    F     F     C    C     C
ApproachDel:      72.8           120.1           78.0           24.5
Delay Adj:       1.00            1.00           1.00           1.00
ApprAdjDel:       72.8           120.1           78.0           24.5
LOS by Appr:         F              F              F              C
AllWayAvgQ:   7.5  7.5   7.5  13.4 13.4  13.4   8.2  8.2   8.2   1.4  1.4   1.4
Note: Queue reported is the number of cars per lane.
```

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #23: Clarke Avenue and Runnymede Street



Street Name:	Clarke Avenue						Runnymede Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	40	373	38	26	327	54	140	152	30	25	185	20
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:	40	373	38	26	327	54	140	152	30	25	185	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	373	38	26	327	54	140	152	30	25	185	20
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:	40	373	38	26	327	54	140	152	30	25	185	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	373	38	26	327	54	140	152	30	25	185	20
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:	40	373	38	26	327	54	140	152	30	25	185	20
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.83	0.08	0.06	0.81	0.13	0.43	0.48	0.09	0.11	0.80	0.09
Final Sat.:	45	423	43	32	400	66	196	212	42	45	336	36
Capacity Analysis Module:												
Vol/Sat:	0.88	0.88	0.88	0.82	0.82	0.82	0.72	0.72	0.72	0.55	0.55	0.55
Crit Moves:	****				****		****				****	
Delay/Veh:	38.8	38.8	38.8	30.7	30.7	30.7	23.6	23.6	23.6	17.7	17.7	17.7
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
AdjDel/Veh:	38.8	38.8	38.8	30.7	30.7	30.7	23.6	23.6	23.6	17.7	17.7	17.7
LOS by Move:	E	E	E	D	D	D	C	C	C	C	C	C
ApproachDel:	38.8			30.7			23.6			17.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	38.8			30.7			23.6			17.7		
LOS by Appr:	E			D			C			C		
AllWayAvgQ:	4.1	4.1	4.1	2.9	2.9	2.9	1.7	1.7	1.7	0.8	0.8	0.8

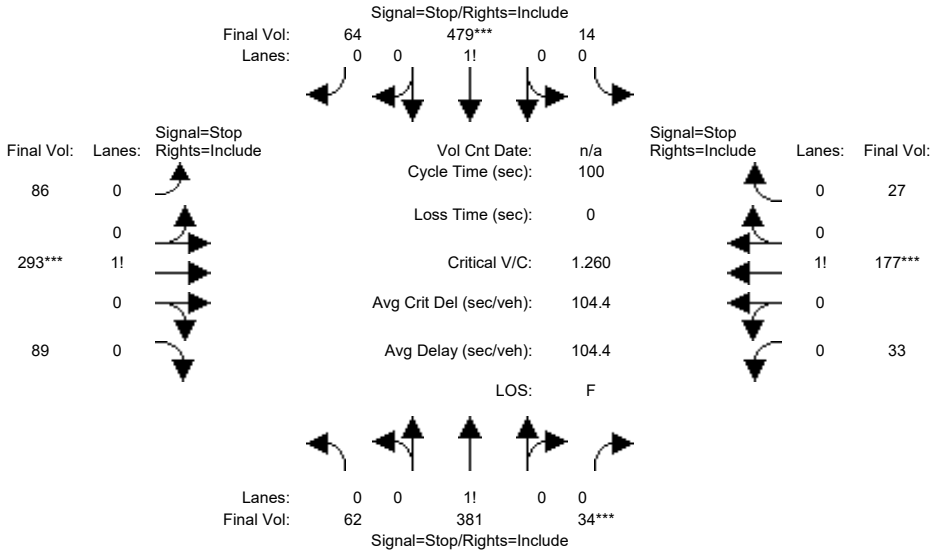
Note: Queue reported is the number of cars per lane.

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City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #23: Clarke Avenue and Runnymede Street



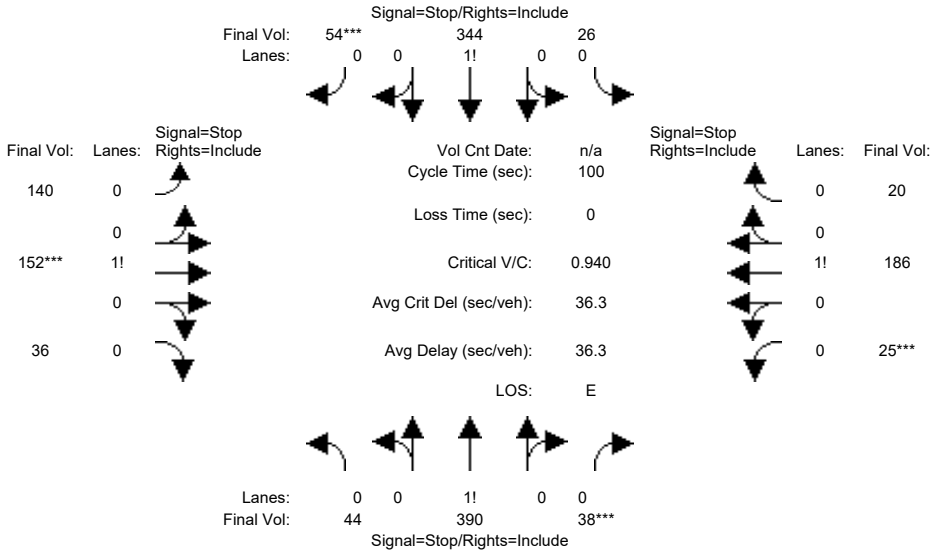

```
Street Name:         Clarke Avenue                 Runnymede Street
Approach:     North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      56  352   34   14  434   64   86  293   74   33  175   27
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:   56  352   34   14  434   64   86  293   74   33  175   27
Added Vol:      6   29    0    0   45    0    0    0   15    0    2    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:   62  381   34   14  479   64   86  293   89   33  177   27
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    62  381   34   14  479   64   86  293   89   33  177   27
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   62  381   34   14  479   64   86  293   89   33  177   27
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:   62  381   34   14  479   64   86  293   89   33  177   27
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:      0.13 0.80  0.07  0.03 0.86  0.11  0.18 0.63  0.19  0.14 0.75  0.11
Final Sat.:    57  351   31   11  380   51   81  277   84   55  296   45
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.09 1.09  1.09  1.26 1.26  1.26  1.06 1.06  1.06  0.60 0.60  0.60
Crit Moves:            ****      ****           ****           ****
Delay/Veh:   96.5 96.5  96.5 159.4  159 159.4  87.5 87.5  87.5  24.7 24.7  24.7
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
AdjDel/Veh:  96.5 96.5  96.5 159.4  159 159.4  87.5 87.5  87.5  24.7 24.7  24.7
LOS by Move:    F    F     F     F    F     F     F    F     F     C    C     C
ApproachDel:      96.5           159.4           87.5           24.7
Delay Adj:       1.00            1.00           1.00           1.00
ApprAdjDel:       96.5           159.4           87.5           24.7
LOS by Appr:         F              F              F              C
AllWayAvgQ:  10.4 10.4  10.4  18.2 18.2  18.2   9.4  9.4   9.4   1.4  1.4   1.4
Note: Queue reported is the number of cars per lane.
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #23: Clarke Avenue and Runnymede Street



Street Name:	Clarke Avenue						Runnymede Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	40	373	38	26	327	54	140	152	30	25	185	20
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:	40	373	38	26	327	54	140	152	30	25	185	20
Added Vol:	4	17	0	0	17	0	0	0	6	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	390	38	26	344	54	140	152	36	25	186	20
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:	44	390	38	26	344	54	140	152	36	25	186	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	390	38	26	344	54	140	152	36	25	186	20
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:	44	390	38	26	344	54	140	152	36	25	186	20
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.83	0.08	0.06	0.81	0.13	0.43	0.46	0.11	0.11	0.80	0.09
Final Sat.:	47	415	40	30	396	62	190	206	49	45	332	36
Capacity Analysis Module:												
Vol/Sat:	0.94	0.94	0.94	0.87	0.87	0.87	0.74	0.74	0.74	0.56	0.56	0.56
Crit Moves:			****			****		****			****	
Delay/Veh:	50.4	50.4	50.4	37.8	37.8	37.8	26.3	26.3	26.3	18.9	18.9	18.9
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
AdjDel/Veh:	50.4	50.4	50.4	37.8	37.8	37.8	26.3	26.3	26.3	18.9	18.9	18.9
LOS by Move:	F	F	F	E	E	E	D	D	D	C	C	C
ApproachDel:	50.4			37.8			26.3			18.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	50.4			37.8			26.3			18.9		
LOS by Appr:	F			E			D			C		
AllWayAvgQ:	5.6	5.6	5.6	3.7	3.7	3.7	1.9	1.9	1.9	0.9	0.9	0.9

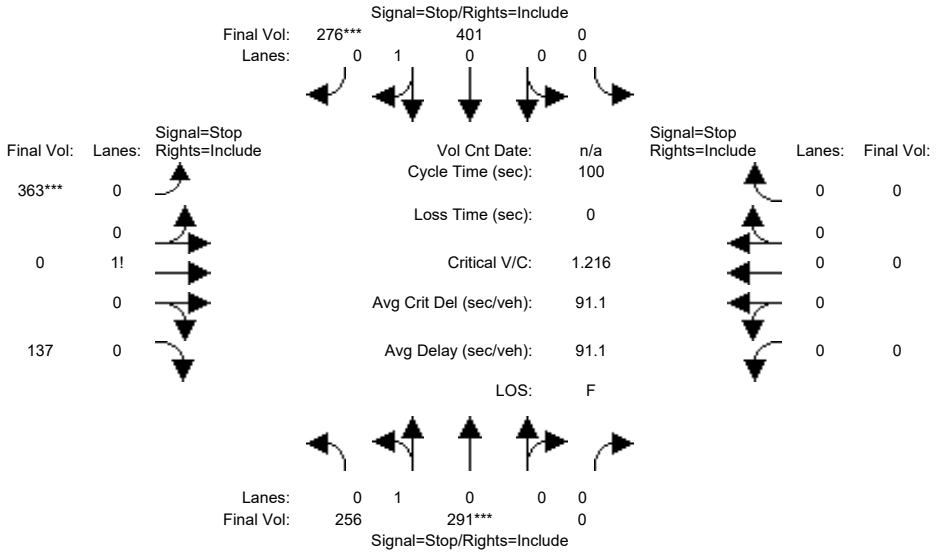
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #24: Clarke Avenue and Donohoe Street



Street Name:	Clarke Avenue						Donohoe Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	256	291	0	0	401	276	363	0	137	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:	256	291	0	0	401	276	363	0	137	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	291	0	0	401	276	363	0	137	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:	256	291	0	0	401	276	363	0	137	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	291	0	0	401	276	363	0	137	0	0	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:	256	291	0	0	401	276	363	0	137	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.47	0.53	0.00	0.00	0.59	0.41	0.73	0.00	0.27	0.00	0.00	0.00
Final Sat.:	248	281	0	0	330	227	388	0	146	0	0	0
Capacity Analysis Module:												
Vol/Sat:	1.03	1.03	xxxx	xxxx	1.22	1.22	0.94	xxxx	0.94	xxxx	xxxx	xxxx
Crit Moves:	****					****	****					
Delay/Veh:	74.2	74.2	0.0	0.0	135	134.8	50.4	0.0	50.4	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
AdjDel/Veh:	74.2	74.2	0.0	0.0	135	134.8	50.4	0.0	50.4	0.0	0.0	0.0
LOS by Move:	F	F	*	*	F	F	F	*	F	*	*	*
ApproachDel:	74.2			134.8			50.4			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	74.2			134.8			50.4			xxxxxx		
LOS by Appr:	F			F			F			*		
AllWayAvgQ:	9.5	9.5	9.5	19.4	19.4	19.4	6.0	6.0	6.0	0.0	0.0	0.0

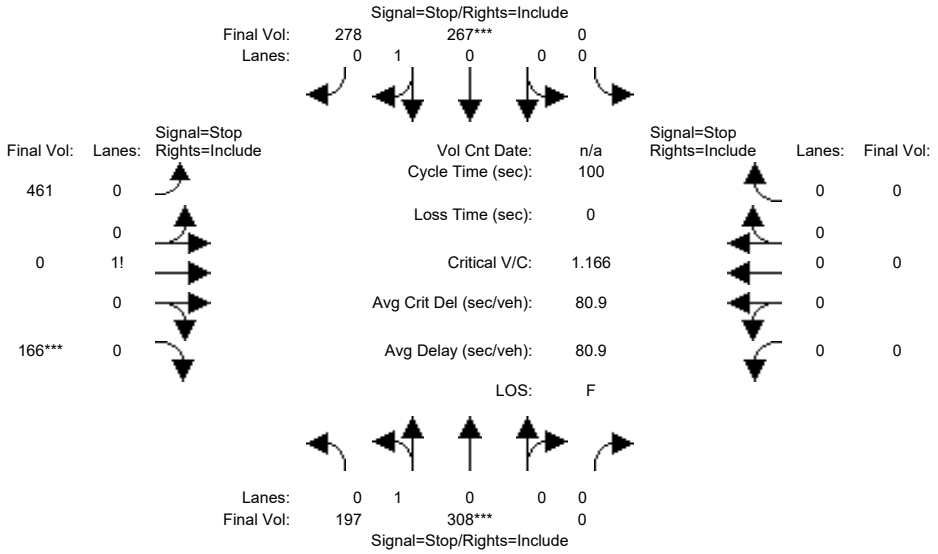
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #24: Clarke Avenue and Donohoe Street



Street Name:	Clarke Avenue						Donohoe Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	197	308	0	0	267	278	461	0	166	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:	197	308	0	0	267	278	461	0	166	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	308	0	0	267	278	461	0	166	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:	197	308	0	0	267	278	461	0	166	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	308	0	0	267	278	461	0	166	0	0	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:	197	308	0	0	267	278	461	0	166	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	0.00	0.00	0.49	0.51	0.74	0.00	0.26	0.00	0.00	0.00
Final Sat.:	203	318	0	0	271	282	395	0	142	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.97	0.97	xxxx	xxxx	0.99	0.99	1.17	xxxx	1.17	xxxx	xxxx	xxxx
Crit Moves:	****			****			****					
Delay/Veh:	58.4	58.4	0.0	0.0	60.1	60.1	117.1	0.0	117.1	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
AdjDel/Veh:	58.4	58.4	0.0	0.0	60.1	60.1	117.1	0.0	117.1	0.0	0.0	0.0
LOS by Move:	F	F	*	*	F	F	F	*	F	*	*	*
ApproachDel:	58.4			60.1			117.1			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	58.4			60.1			117.1			xxxxxx		
LOS by Appr:	F			F			F			*		
AllWayAvgQ:	7.0	7.0	7.0	7.8	7.8	7.8	16.0	16.0	16.0	0.0	0.0	0.0

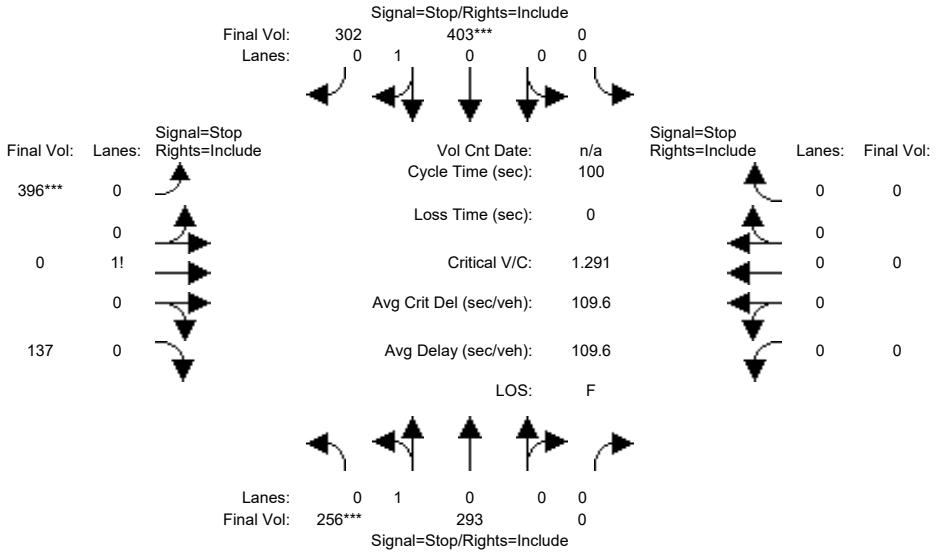
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #24: Clarke Avenue and Donohoe Street



Street Name:	Clarke Avenue						Donohoe Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	256	291	0	0	401	276	363	0	137	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:	256	291	0	0	401	276	363	0	137	0	0	0
Added Vol:	0	2	0	0	2	26	33	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	293	0	0	403	302	396	0	137	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:	256	293	0	0	403	302	396	0	137	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	293	0	0	403	302	396	0	137	0	0	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:	256	293	0	0	403	302	396	0	137	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.47	0.53	0.00	0.00	0.57	0.43	0.74	0.00	0.26	0.00	0.00	0.00
Final Sat.:	242	277	0	0	312	234	396	0	137	0	0	0
Capacity Analysis Module:												
Vol/Sat:	1.06	1.06	xxxx	xxxx	1.29	1.29	1.00	xxxx	1.00	xxxx	xxxx	xxxx
Crit Moves:	****				****		****					
Delay/Veh:	82.1	82.1	0.0	0.0	165	165.0	64.7	0.0	64.7	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
AdjDel/Veh:	82.1	82.1	0.0	0.0	165	165.0	64.7	0.0	64.7	0.0	0.0	0.0
LOS by Move:	F	F	*	*	F	F	F	*	F	*	*	*
ApproachDel:	82.1			165.0			64.7			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	82.1			165.0			64.7			xxxxxx		
LOS by Appr:	F			F			F			*		
AllWayAvgQ:	10.4	10.4	10.4	23.6	23.6	23.6	8.1	8.1	8.1	0.0	0.0	0.0

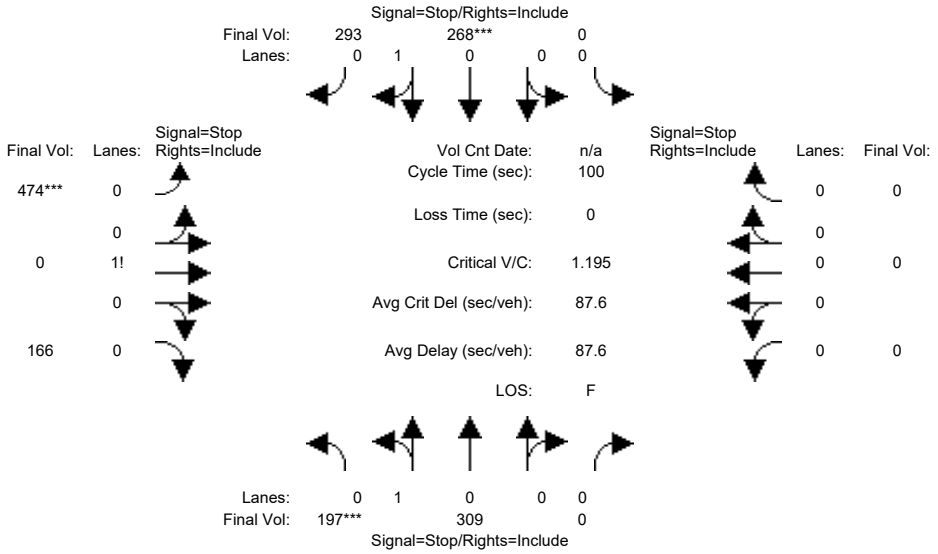
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #24: Clarke Avenue and Donohoe Street



Street Name:	Clarke Avenue						Donohoe Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	197	308	0	0	267	278	461	0	166	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:	197	308	0	0	267	278	461	0	166	0	0	0
Added Vol:	0	1	0	0	1	15	13	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	309	0	0	268	293	474	0	166	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:	197	309	0	0	268	293	474	0	166	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	309	0	0	268	293	474	0	166	0	0	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:	197	309	0	0	268	293	474	0	166	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	0.00	0.00	0.48	0.52	0.74	0.00	0.26	0.00	0.00	0.00
Final Sat.:	202	317	0	0	264	289	397	0	139	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.97	0.97	xxxx	xxxx	1.01	1.01	1.19	xxxx	1.19	xxxx	xxxx	xxxx
Crit Moves:	****				****		****					
Delay/Veh:	59.4	59.4	0.0	0.0	67.2	67.2	127.9	0.0	127.9	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
AdjDel/Veh:	59.4	59.4	0.0	0.0	67.2	67.2	127.9	0.0	127.9	0.0	0.0	0.0
LOS by Move:	F	F	*	*	F	F	F	*	F	*	*	*
ApproachDel:	59.4			67.2			127.9			xxxxxx		
Delay Adj:	1.00			1.00			1.00			xxxxx		
ApprAdjDel:	59.4			67.2			127.9			xxxxxx		
LOS by Appr:	F			F			F			*		
AllWayAvgQ:	7.1	7.1	7.1	8.9	8.9	8.9	17.6	17.6	17.6	0.0	0.0	0.0

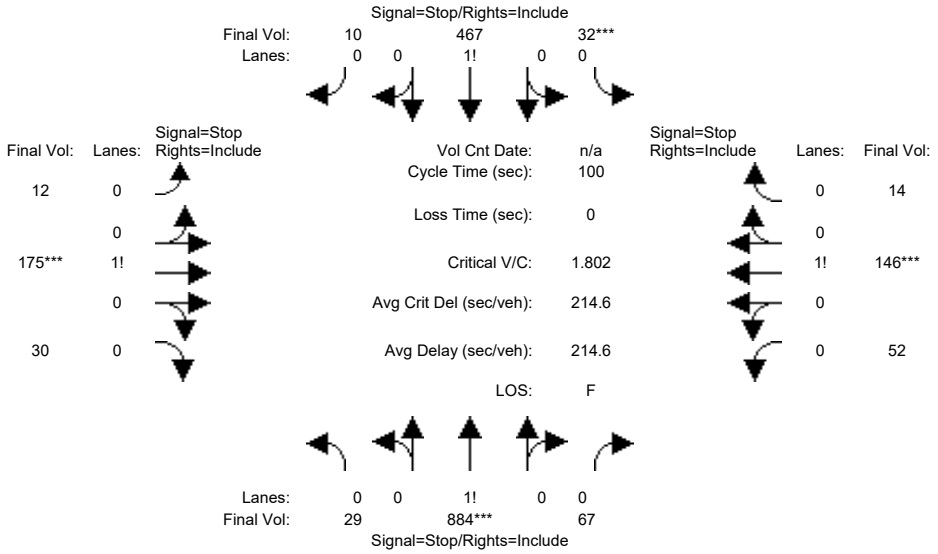
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	29	884	67	32	467	10	12	175	30	52	146	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:	29	884	67	32	467	10	12	175	30	52	146	14
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	884	67	32	467	10	12	175	30	52	146	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:	29	884	67	32	467	10	12	175	30	52	146	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	884	67	32	467	10	12	175	30	52	146	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:	29	884	67	32	467	10	12	175	30	52	146	14
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.90	0.07	0.06	0.92	0.02	0.05	0.81	0.14	0.24	0.69	0.07
Final Sat.:	16	491	37	34	490	10	25	363	62	109	306	29
Capacity Analysis Module:												
Vol/Sat:	1.80	1.80	1.80	0.95	0.95	0.95	0.48	0.48	0.48	0.48	0.48	0.48
Crit Moves:		****			****			****			****	
Delay/Veh:	384.8	385	384.8	53.2	53.2	53.2	17.3	17.3	17.3	17.4	17.4	17.4
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
AdjDel/Veh:	384.8	385	384.8	53.2	53.2	53.2	17.3	17.3	17.3	17.4	17.4	17.4
LOS by Move:	F	F	F	F	F	F	C	C	C	C	C	C
ApproachDel:	384.8			53.2			17.3			17.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	384.8			53.2			17.3			17.4		
LOS by Appr:	F			F			C			C		
AllWayAvgQ:	56.7	56.7	56.7	6.5	6.5	6.5	0.8	0.8	0.8	0.8	0.8	0.8

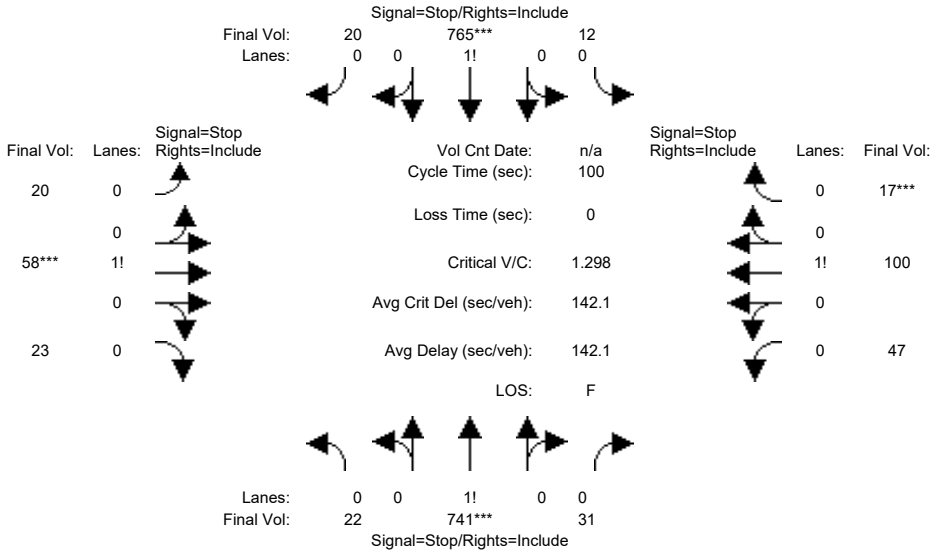
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	22	741	31	12	765	20	20	58	23	47	100	17
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:	22	741	31	12	765	20	20	58	23	47	100	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	741	31	12	765	20	20	58	23	47	100	17
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:	22	741	31	12	765	20	20	58	23	47	100	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	741	31	12	765	20	20	58	23	47	100	17
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:	22	741	31	12	765	20	20	58	23	47	100	17
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.93	0.04	0.01	0.96	0.03	0.20	0.57	0.23	0.29	0.61	0.10
Final Sat.:	17	574	24	9	589	15	93	268	106	139	296	50
Capacity Analysis Module:												
Vol/Sat:	1.29	1.29	1.29	1.30	1.30	1.30	0.22	0.22	0.22	0.34	0.34	0.34
Crit Moves:	****			****			****			****		
Delay/Veh:	162.3	162	162.3	164.8	165	164.8	12.5	12.5	12.5	13.9	13.9	13.9
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
AdjDel/Veh:	162.3	162	162.3	164.8	165	164.8	12.5	12.5	12.5	13.9	13.9	13.9
LOS by Move:	F	F	F	F	F	F	B	B	B	B	B	B
ApproachDel:	162.3			164.8			12.5			13.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	162.3			164.8			12.5			13.9		
LOS by Appr:	F			F			B			B		
AllWayAvgQ:	26.2	26.2	26.2	26.6	26.6	26.6	0.3	0.3	0.3	0.5	0.5	0.5

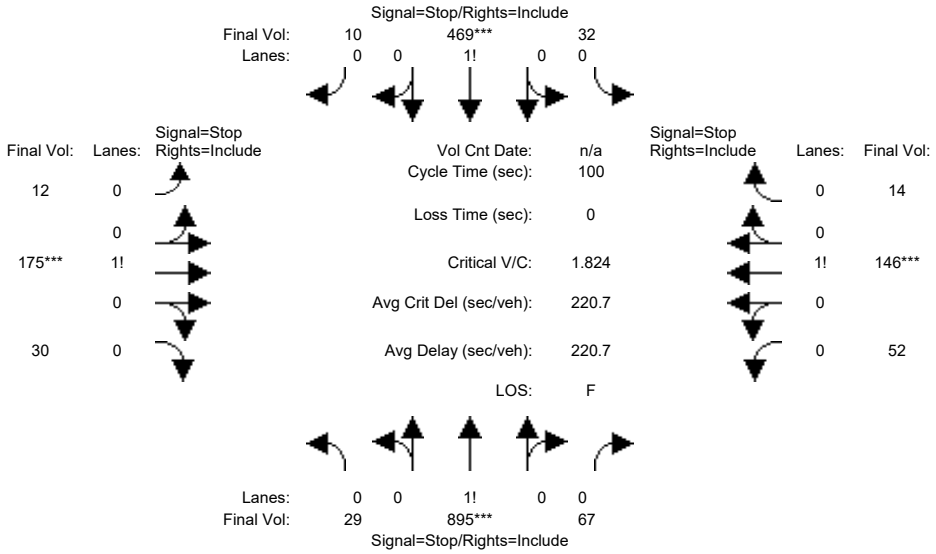
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	29	884	67	32	467	10	12	175	30	52	146	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:	29	884	67	32	467	10	12	175	30	52	146	14
Added Vol:	0	11	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	895	67	32	469	10	12	175	30	52	146	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:	29	895	67	32	469	10	12	175	30	52	146	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	895	67	32	469	10	12	175	30	52	146	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:	29	895	67	32	469	10	12	175	30	52	146	14
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.90	0.07	0.06	0.92	0.02	0.05	0.81	0.14	0.24	0.69	0.07
Final Sat.:	16	491	37	33	490	10	25	363	62	109	306	29
Capacity Analysis Module:												
Vol/Sat:	1.82	1.82	1.82	0.96	0.96	0.96	0.48	0.48	0.48	0.48	0.48	0.48
Crit Moves:	****			****			****			****		
Delay/Veh:	394.7	395	394.7	54.1	54.1	54.1	17.4	17.4	17.4	17.4	17.4	17.4
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
AdjDel/Veh:	394.7	395	394.7	54.1	54.1	54.1	17.4	17.4	17.4	17.4	17.4	17.4
LOS by Move:	F	F	F	F	F	F	C	C	C	C	C	C
ApproachDel:	394.7			54.1			17.4			17.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	394.7			54.1			17.4			17.4		
LOS by Appr:	F			F			C			C		
AllWayAvgQ:	58.1	58.1	58.1	6.6	6.6	6.6	0.8	0.8	0.8	0.8	0.8	0.8

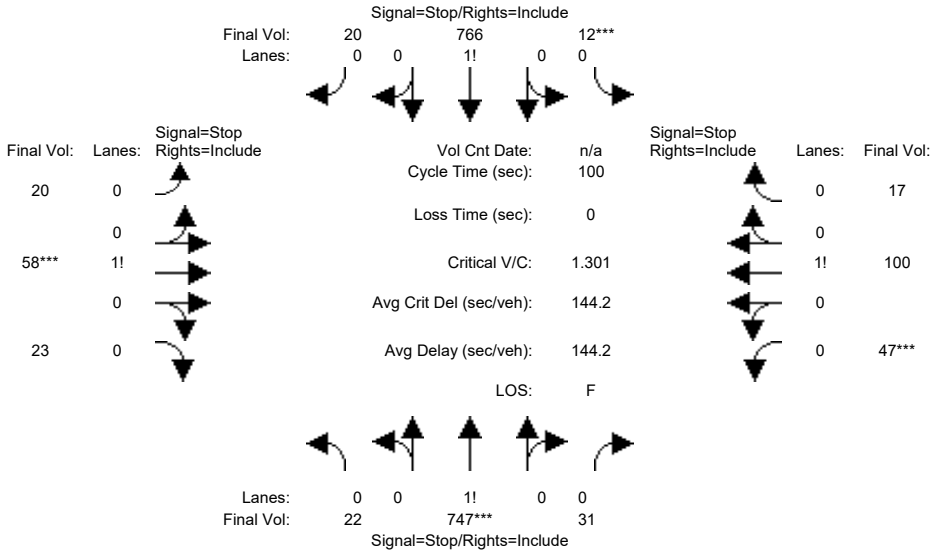
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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	22	741	31	12	765	20	20	58	23	47	100	17
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:	22	741	31	12	765	20	20	58	23	47	100	17
Added Vol:	0	6	0	0	1	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	747	31	12	766	20	20	58	23	47	100	17
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:	22	747	31	12	766	20	20	58	23	47	100	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	747	31	12	766	20	20	58	23	47	100	17
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:	22	747	31	12	766	20	20	58	23	47	100	17
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.93	0.04	0.01	0.96	0.03	0.20	0.57	0.23	0.29	0.61	0.10
Final Sat.:	17	574	24	9	589	15	93	268	106	139	296	50
Capacity Analysis Module:												
Vol/Sat:	1.30	1.30	1.30	1.30	1.30	1.30	0.22	0.22	0.22	0.34	0.34	0.34
Crit Moves:	****			****				****			****	
Delay/Veh:	166.3	166	166.3	165.5	166	165.5	12.5	12.5	12.5	13.9	13.9	13.9
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
AdjDel/Veh:	166.3	166	166.3	165.5	166	165.5	12.5	12.5	12.5	13.9	13.9	13.9
LOS by Move:	F	F	F	F	F	F	B	B	B	B	B	B
ApproachDel:	166.3			165.5			12.5			13.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	166.3			165.5			12.5			13.9		
LOS by Appr:	F			F			B			B		
AllWayAvgQ:	26.9	26.9	26.9	26.7	26.7	26.7	0.3	0.3	0.3	0.5	0.5	0.5

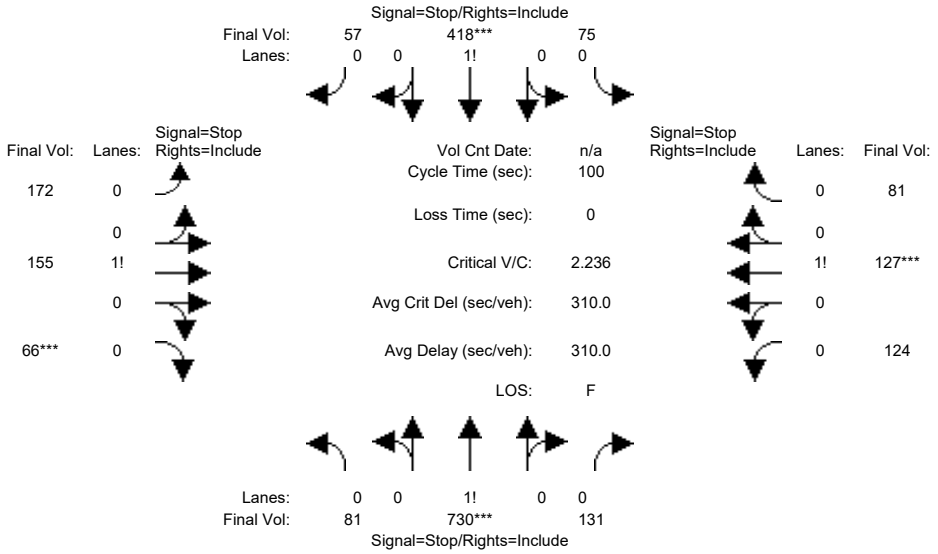
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #29: Pulgas Avenue and Runnymead Street



Street Name:	Pulgas Avenue						Runnymead Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	81	730	131	75	418	57	172	155	66	124	127	81
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:	81	730	131	75	418	57	172	155	66	124	127	81
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	730	131	75	418	57	172	155	66	124	127	81
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:	81	730	131	75	418	57	172	155	66	124	127	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	730	131	75	418	57	172	155	66	124	127	81
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:	81	730	131	75	418	57	172	155	66	124	127	81
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.77	0.14	0.14	0.76	0.10	0.44	0.39	0.17	0.37	0.39	0.24
Final Sat.:	36	326	59	57	319	43	180	163	69	149	152	97
Capacity Analysis Module:												
Vol/Sat:	2.24	2.24	2.24	1.31	1.31	1.31	0.95	0.95	0.95	0.83	0.83	0.83
Crit Moves:	****			****				****		****		
Delay/Veh:	582.9	583	582.9	181.1	181	181.1	62.7	62.7	62.7	42.3	42.3	42.3
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
AdjDel/Veh:	582.9	583	582.9	181.1	181	181.1	62.7	62.7	62.7	42.3	42.3	42.3
LOS by Move:	F	F	F	F	F	F	F	F	F	E	E	E
ApproachDel:	582.9			181.1			62.7			42.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	582.9			181.1			62.7			42.3		
LOS by Appr:	F			F			F			E		
AllWayAvgQ:	66.9	66.9	66.9	19.8	19.8	19.8	5.8	5.8	5.8	3.4	3.4	3.4

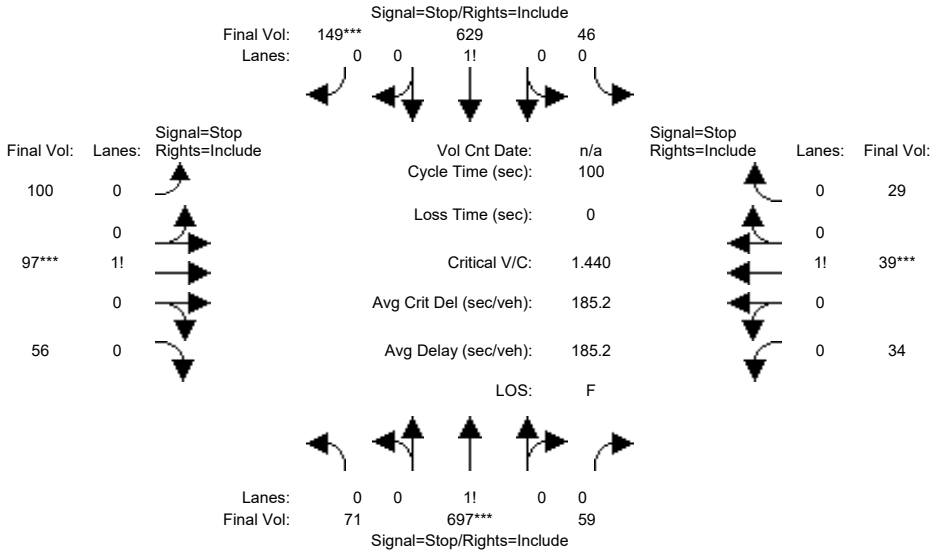
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #29: Pulgas Avenue and Runnymead Street



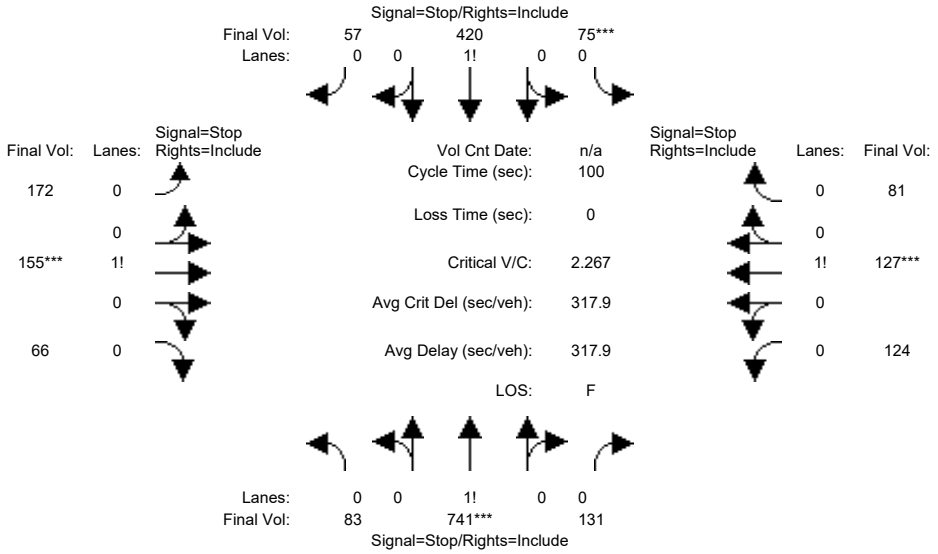

```
Street Name:         Pulgas Avenue                 Runnymead Street
Approach:      North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      71  697   59   46  629  149  100   97   56   34   39   29
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  697   59   46  629  149  100   97   56   34   39   29
Added Vol:      0    0    0    0    0    0    0    0    0    0    0    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:   71  697   59   46  629  149  100   97   56   34   39   29
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    71  697   59   46  629  149  100   97   56   34   39   29
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   71  697   59   46  629  149  100   97   56   34   39   29
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  697   59   46  629  149  100   97   56   34   39   29
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:      0.09 0.84 0.07 0.06 0.76 0.18 0.40 0.38 0.22 0.33 0.39 0.28
Final Sat.:    49  484   41   32  443  105  193  187  108  146  168  125
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.44 1.44 1.44 1.42 1.42 1.42 0.52 0.52 0.52 0.23 0.23 0.23
Crit Moves:       ****               ****      ****           ****
Delay/Veh:  226.2 226 226.2 216.7 217 216.7 17.8 17.8 17.8 13.2 13.2 13.2
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
AdjDel/Veh: 226.2 226 226.2 216.7 217 216.7 17.8 17.8 17.8 13.2 13.2 13.2
LOS by Move:    F    F    F    F    F    F    C    C    C    B    B    B
ApproachDel:      226.2          216.7          17.8          13.2
Delay Adj:         1.00          1.00           1.00          1.00
ApprAdjDel:       226.2          216.7          17.8          13.2
LOS by Appr:          F              F              C             B
AllWayAvgQ:  34.6 34.6 34.6 33.5 33.5 33.5  1.0  1.0  1.0  0.3  0.3  0.3
Note: Queue reported is the number of cars per lane.
```

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #29: Pulgas Avenue and Runnymead Street



Street Name:	Pulgas Avenue						Runnymead Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	81	730	131	75	418	57	172	155	66	124	127	81
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:	81	730	131	75	418	57	172	155	66	124	127	81
Added Vol:	2	11	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	741	131	75	420	57	172	155	66	124	127	81
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:	83	741	131	75	420	57	172	155	66	124	127	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	741	131	75	420	57	172	155	66	124	127	81
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:	83	741	131	75	420	57	172	155	66	124	127	81
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.77	0.14	0.14	0.76	0.10	0.44	0.39	0.17	0.37	0.39	0.24
Final Sat.:	37	327	58	57	319	43	180	163	69	149	152	97
Capacity Analysis Module:												
Vol/Sat:	2.27	2.27	2.27	1.32	1.32	1.32	0.95	0.95	0.95	0.83	0.83	0.83
Crit Moves:	****			****			****			****		
Delay/Veh:	596.8	597	596.8	183.0	183	183.0	62.7	62.7	62.7	42.3	42.3	42.3
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
AdjDel/Veh:	596.8	597	596.8	183.0	183	183.0	62.7	62.7	62.7	42.3	42.3	42.3
LOS by Move:	F	F	F	F	F	F	F	F	F	E	E	E
ApproachDel:	596.8			183.0			62.7			42.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	596.8			183.0			62.7			42.3		
LOS by Appr:	F			F			F			E		
AllWayAvgQ:	68.5	68.5	68.5	20.0	20.0	20.0	5.8	5.8	5.8	3.4	3.4	3.4

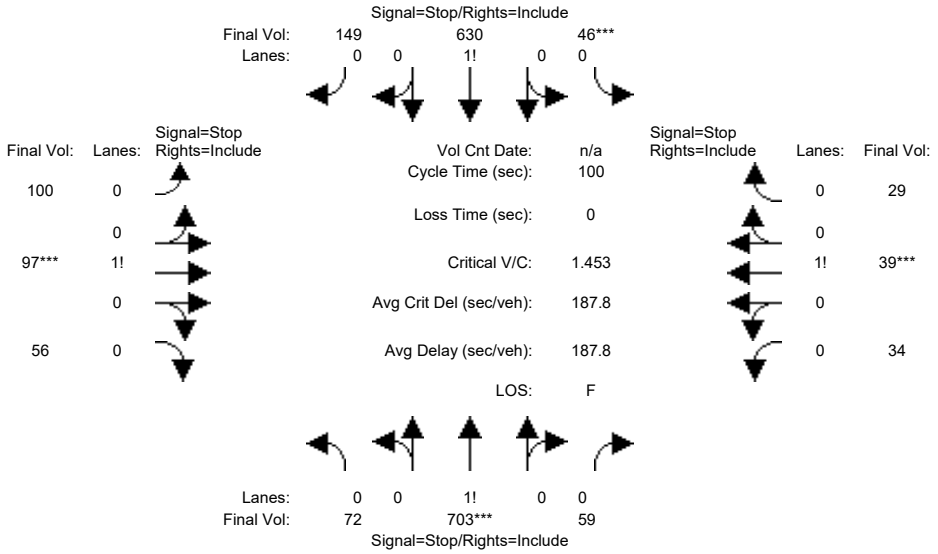
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #29: Pulgas Avenue and Runnymead Street



Street Name:	Pulgas Avenue						Runnymead Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	71	697	59	46	629	149	100	97	56	34	39	29
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	697	59	46	629	149	100	97	56	34	39	29
Added Vol:	1	6	0	0	1	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	703	59	46	630	149	100	97	56	34	39	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	703	59	46	630	149	100	97	56	34	39	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	703	59	46	630	149	100	97	56	34	39	29
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	703	59	46	630	149	100	97	56	34	39	29
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.84	0.07	0.06	0.76	0.18	0.40	0.38	0.22	0.33	0.39	0.28
Final Sat.:	50	484	41	32	443	105	193	187	108	146	168	125
Capacity Analysis Module:												
Vol/Sat:	1.45	1.45	1.45	1.42	1.42	1.42	0.52	0.52	0.52	0.23	0.23	0.23
Crit Moves:	****			****			****			****		
Delay/Veh:	231.5	231	231.5	217.5	217	217.5	17.8	17.8	17.8	13.2	13.2	13.2
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
AdjDel/Veh:	231.5	231	231.5	217.5	217	217.5	17.8	17.8	17.8	13.2	13.2	13.2
LOS by Move:	F	F	F	F	F	F	C	C	C	B	B	B
ApproachDel:	231.5			217.5			17.8			13.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	231.5			217.5			17.8			13.2		
LOS by Appr:	F			F			C			B		
AllWayAvgQ:	35.4	35.4	35.4	33.6	33.6	33.6	1.0	1.0	1.0	0.3	0.3	0.3

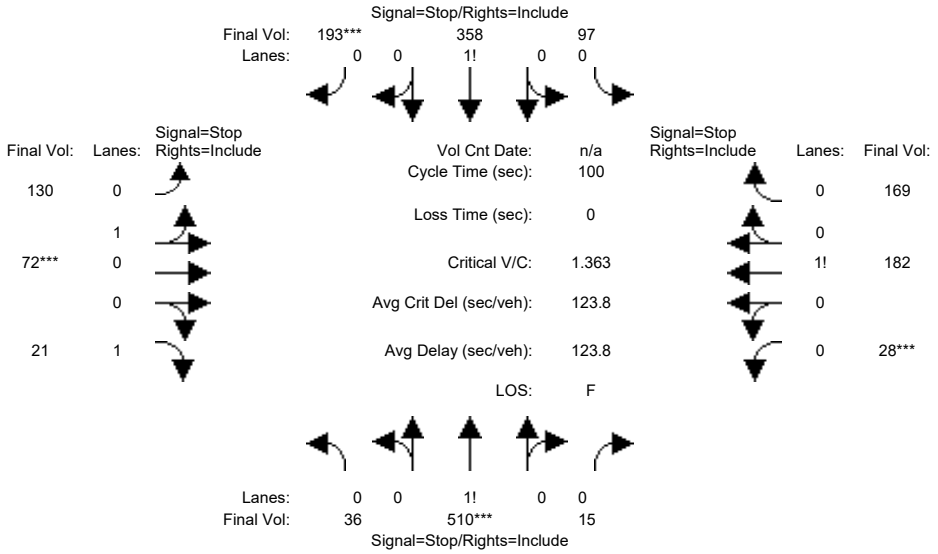
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	36	510	15	97	358	193	130	72	21	28	182	169
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	510	15	97	358	193	130	72	21	28	182	169
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	510	15	97	358	193	130	72	21	28	182	169
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	510	15	97	358	193	130	72	21	28	182	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	510	15	97	358	193	130	72	21	28	182	169
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	510	15	97	358	193	130	72	21	28	182	169
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.91	0.03	0.15	0.55	0.30	0.64	0.36	1.00	0.07	0.48	0.45
Final Sat.:	30	424	12	71	263	142	244	135	425	33	217	201
Capacity Analysis Module:												
Vol/Sat:	1.20	1.20	1.20	1.36	1.36	1.36	0.53	0.53	0.05	0.84	0.84	0.84
Crit Moves:	****			****			****		****			
Delay/Veh:	135.3	135	135.3	198.5	199	198.5	21.7	21.7	11.4	39.9	39.9	39.9
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
AdjDel/Veh:	135.3	135	135.3	198.5	199	198.5	21.7	21.7	11.4	39.9	39.9	39.9
LOS by Move:	F	F	F	F	F	F	C	C	B	E	E	E
ApproachDel:	135.3			198.5			20.7			39.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	135.3			198.5			20.7			39.9		
LOS by Appr:	F			F			C			E		
AllWayAvgQ:	16.1	16.1	16.1	24.8	24.8	24.8	1.0	1.0	0.0	3.6	3.6	3.6

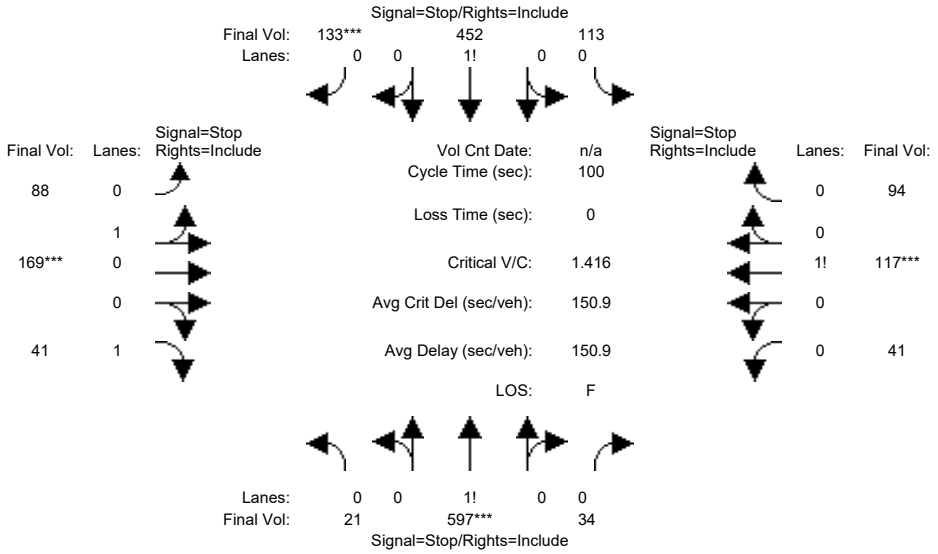
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	21	597	34	113	452	133	88	169	41	41	117	94
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:	21	597	34	113	452	133	88	169	41	41	117	94
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	597	34	113	452	133	88	169	41	41	117	94
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:	21	597	34	113	452	133	88	169	41	41	117	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	597	34	113	452	133	88	169	41	41	117	94
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:	21	597	34	113	452	133	88	169	41	41	117	94
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.92	0.05	0.16	0.65	0.19	0.34	0.66	1.00	0.16	0.47	0.37
Final Sat.:	16	448	25	80	319	94	141	270	456	70	200	161
Capacity Analysis Module:												
Vol/Sat:	1.33	1.33	1.33	1.42	1.42	1.42	0.63	0.63	0.09	0.59	0.59	0.59
Crit Moves:	****			****			****			****		
Delay/Veh:	185.6	186	185.6	219.9	220	219.9	24.4	24.4	11.3	21.9	21.9	21.9
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
AdjDel/Veh:	185.6	186	185.6	219.9	220	219.9	24.4	24.4	11.3	21.9	21.9	21.9
LOS by Move:	F	F	F	F	F	F	C	C	B	C	C	C
ApproachDel:	185.6			219.9			22.6			21.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	185.6			219.9			22.6			21.9		
LOS by Appr:	F			F			C			C		
AllWayAvgQ:	23.8	23.8	23.8	28.7	28.7	28.7	1.5	1.5	0.1	1.3	1.3	1.3

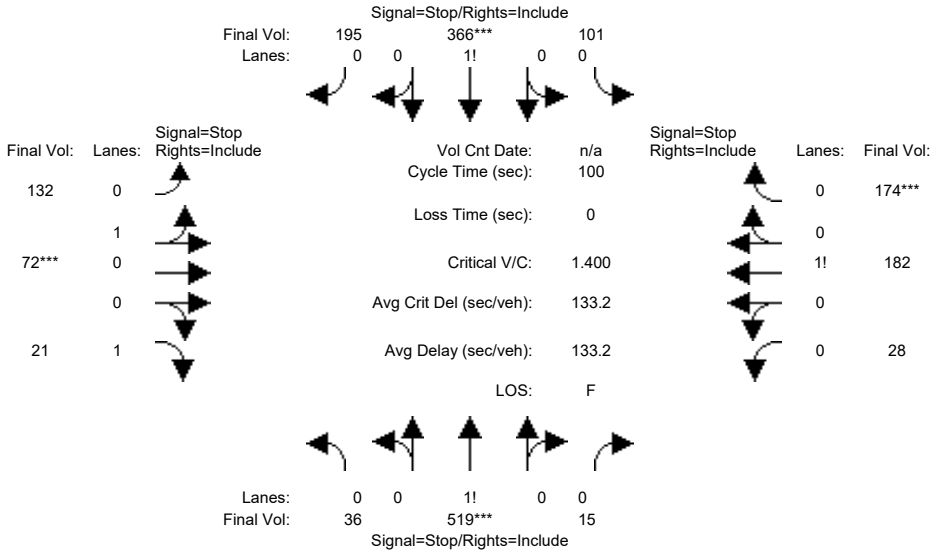
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	36	510	15	97	358	193	130	72	21	28	182	169
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	510	15	97	358	193	130	72	21	28	182	169
Added Vol:	0	9	0	4	8	2	2	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	519	15	101	366	195	132	72	21	28	182	174
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	519	15	101	366	195	132	72	21	28	182	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	519	15	101	366	195	132	72	21	28	182	174
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	519	15	101	366	195	132	72	21	28	182	174
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.91	0.03	0.15	0.56	0.29	0.65	0.35	1.00	0.07	0.48	0.45
Final Sat.:	29	423	12	72	261	139	245	134	424	33	214	204
Capacity Analysis Module:												
Vol/Sat:	1.23	1.23	1.23	1.40	1.40	1.40	0.54	0.54	0.05	0.85	0.85	0.85
Crit Moves:	****			****			****			****		
Delay/Veh:	145.3	145	145.3	214.2	214	214.2	21.9	21.9	11.4	41.5	41.5	41.5
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
AdjDel/Veh:	145.3	145	145.3	214.2	214	214.2	21.9	21.9	11.4	41.5	41.5	41.5
LOS by Move:	F	F	F	F	F	F	C	C	B	E	E	E
ApproachDel:	145.3			214.2			21.0			41.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	145.3			214.2			21.0			41.5		
LOS by Appr:	F			F			C			E		
AllWayAvgQ:	17.3	17.3	17.3	26.7	26.7	26.7	1.0	1.0	0.0	3.8	3.8	3.8

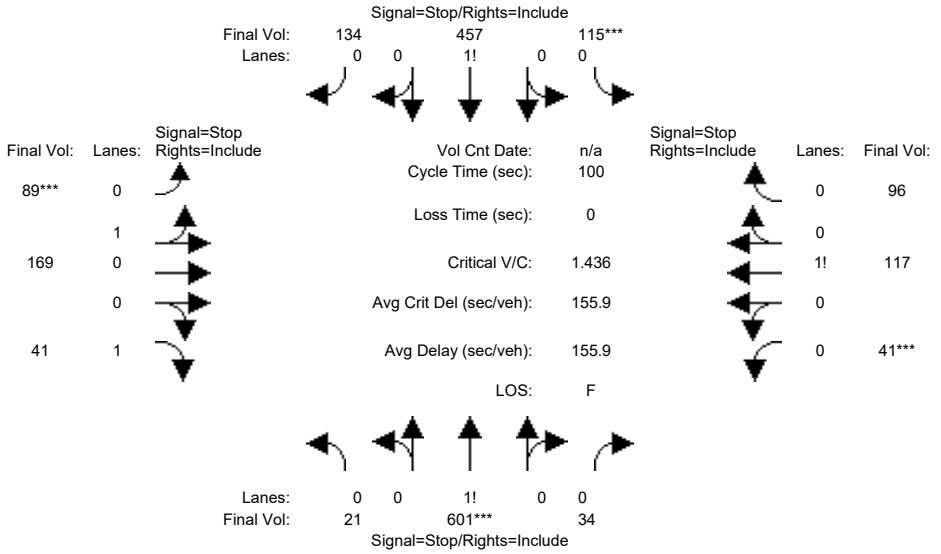
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #30: Pulgas Avenue and O'Connor Street



Street Name:	Pulgas Avenue						O'Connor Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	21	597	34	113	452	133	88	169	41	41	117	94
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:	21	597	34	113	452	133	88	169	41	41	117	94
Added Vol:	0	4	0	2	5	1	1	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	601	34	115	457	134	89	169	41	41	117	96
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:	21	601	34	115	457	134	89	169	41	41	117	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	601	34	115	457	134	89	169	41	41	117	96
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:	21	601	34	115	457	134	89	169	41	41	117	96
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.92	0.05	0.16	0.65	0.19	0.34	0.66	1.00	0.16	0.46	0.38
Final Sat.:	16	447	25	80	318	93	141	269	456	69	198	163
Capacity Analysis Module:												
Vol/Sat:	1.34	1.34	1.34	1.44	1.44	1.44	0.63	0.63	0.09	0.59	0.59	0.59
Crit Moves:	****			****			****			****		
Delay/Veh:	190.3	190	190.3	228.3	228	228.3	24.6	24.6	11.3	22.1	22.1	22.1
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
AdjDel/Veh:	190.3	190	190.3	228.3	228	228.3	24.6	24.6	11.3	22.1	22.1	22.1
LOS by Move:	F	F	F	F	F	F	C	C	B	C	C	C
ApproachDel:	190.3			228.3			22.8			22.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	190.3			228.3			22.8			22.1		
LOS by Appr:	F			F			C			C		
AllWayAvgQ:	24.4	24.4	24.4	29.8	29.8	29.8	1.5	1.5	0.1	1.3	1.3	1.3

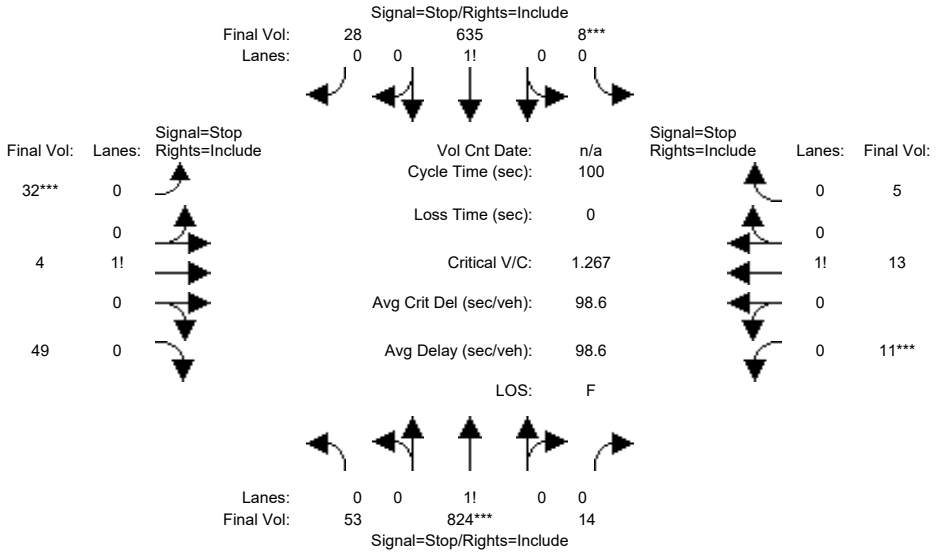
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	53	824	14	8	635	28	32	4	49	11	13	5
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:	53	824	14	8	635	28	32	4	49	11	13	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	824	14	8	635	28	32	4	49	11	13	5
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:	53	824	14	8	635	28	32	4	49	11	13	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	824	14	8	635	28	32	4	49	11	13	5
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:	53	824	14	8	635	28	32	4	49	11	13	5
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.92	0.02	0.01	0.95	0.04	0.37	0.05	0.58	0.38	0.45	0.17
Final Sat.:	42	650	11	8	664	29	201	25	308	187	221	85
Capacity Analysis Module:												
Vol/Sat:	1.27	1.27	1.27	0.96	0.96	0.96	0.16	0.16	0.16	0.06	0.06	0.06
Crit Moves:	****			****			****			****		
Delay/Veh:	149.1	149	149.1	46.4	46.4	46.4	10.9	10.9	10.9	10.6	10.6	10.6
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
AdjDel/Veh:	149.1	149	149.1	46.4	46.4	46.4	10.9	10.9	10.9	10.6	10.6	10.6
LOS by Move:	F	F	F	E	E	E	B	B	B	B	B	B
ApproachDel:	149.1			46.4			10.9			10.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	149.1			46.4			10.9			10.6		
LOS by Appr:	F			E			B			B		
AllWayAvgQ:	27.5	27.5	27.5	7.5	7.5	7.5	0.2	0.2	0.2	0.1	0.1	0.1

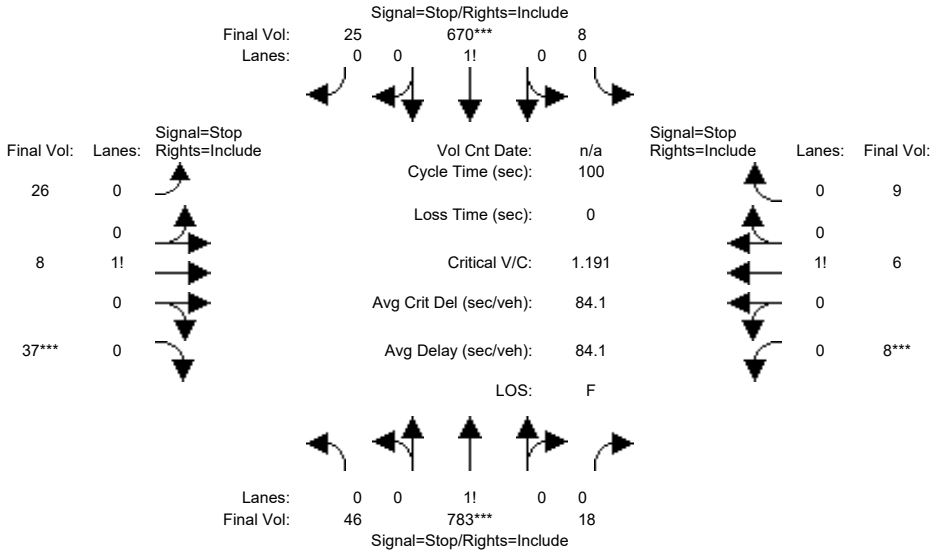
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	46	783	18	8	670	25	26	8	37	8	6	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:	46	783	18	8	670	25	26	8	37	8	6	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	783	18	8	670	25	26	8	37	8	6	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:	46	783	18	8	670	25	26	8	37	8	6	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	783	18	8	670	25	26	8	37	8	6	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:	46	783	18	8	670	25	26	8	37	8	6	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.93	0.02	0.01	0.95	0.04	0.37	0.11	0.52	0.35	0.26	0.39
Final Sat.:	39	658	15	8	679	25	196	60	278	177	133	199
Capacity Analysis Module:												
Vol/Sat:	1.19	1.19	1.19	0.99	0.99	0.99	0.13	0.13	0.13	0.05	0.05	0.05
Crit Moves:	****			****					****	****		
Delay/Veh:	118.4	118	118.4	52.6	52.6	52.6	10.7	10.7	10.7	10.3	10.3	10.3
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
AdjDel/Veh:	118.4	118	118.4	52.6	52.6	52.6	10.7	10.7	10.7	10.3	10.3	10.3
LOS by Move:	F	F	F	F	F	F	B	B	B	B	B	B
ApproachDel:	118.4			52.6			10.7			10.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	118.4			52.6			10.7			10.3		
LOS by Appr:	F			F			B			B		
AllWayAvgQ:	21.8	21.8	21.8	8.8	8.8	8.8	0.2	0.2	0.2	0.0	0.0	0.0

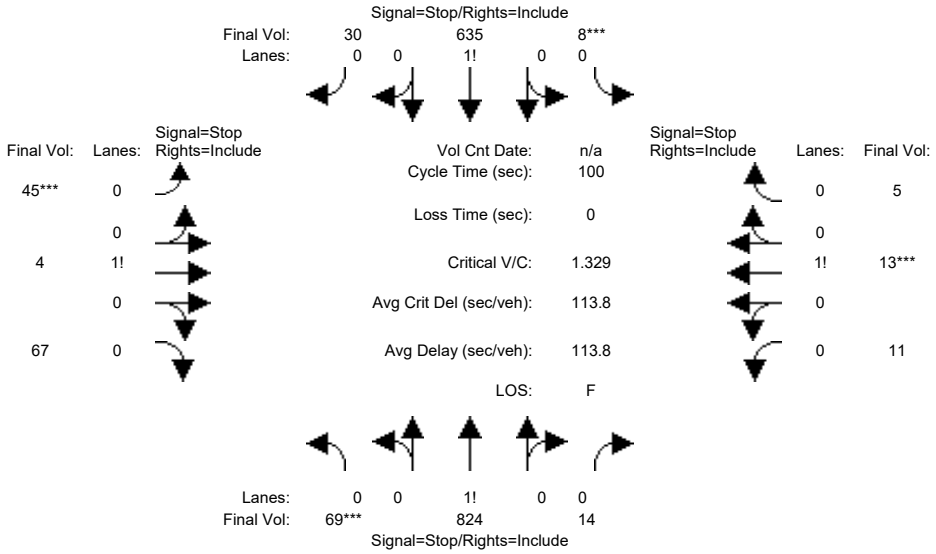
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	53	824	14	8	635	28	32	4	49	11	13	5
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:	53	824	14	8	635	28	32	4	49	11	13	5
Added Vol:	16	0	0	0	0	2	13	0	18	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	824	14	8	635	30	45	4	67	11	13	5
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:	69	824	14	8	635	30	45	4	67	11	13	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	824	14	8	635	30	45	4	67	11	13	5
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:	69	824	14	8	635	30	45	4	67	11	13	5
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	0.91	0.01	0.01	0.95	0.04	0.39	0.03	0.58	0.38	0.45	0.17
Final Sat.:	52	620	11	8	646	31	207	18	308	183	216	83
Capacity Analysis Module:												
Vol/Sat:	1.33	1.33	1.33	0.98	0.98	0.98	0.22	0.22	0.22	0.06	0.06	0.06
Crit Moves:	****			****			****			****		
Delay/Veh:	175.4	175	175.4	52.9	52.9	52.9	11.5	11.5	11.5	10.7	10.7	10.7
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
AdjDel/Veh:	175.4	175	175.4	52.9	52.9	52.9	11.5	11.5	11.5	10.7	10.7	10.7
LOS by Move:	F	F	F	F	F	F	B	B	B	B	B	B
ApproachDel:	175.4			52.9			11.5			10.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	175.4			52.9			11.5			10.7		
LOS by Appr:	F			F			B			B		
AllWayAvgQ:	31.7	31.7	31.7	8.5	8.5	8.5	0.3	0.3	0.3	0.1	0.1	0.1

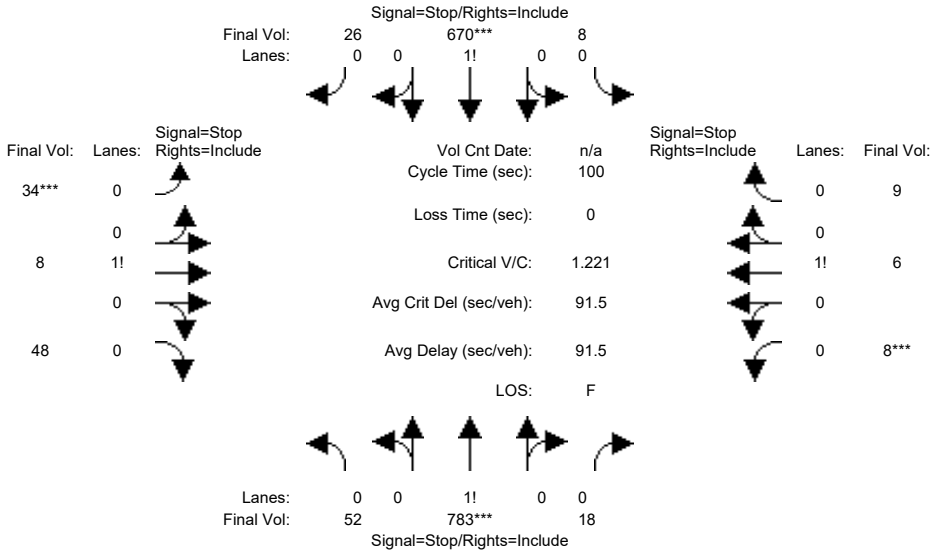
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #200: Pulgas Ave & Garden St



Street Name:	Pulgas Ave						Garden St					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	46	783	18	8	670	25	26	8	37	8	6	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:	46	783	18	8	670	25	26	8	37	8	6	9
Added Vol:	6	0	0	0	0	1	8	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	783	18	8	670	26	34	8	48	8	6	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:	52	783	18	8	670	26	34	8	48	8	6	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	783	18	8	670	26	34	8	48	8	6	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:	52	783	18	8	670	26	34	8	48	8	6	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.92	0.02	0.01	0.95	0.04	0.38	0.09	0.53	0.35	0.26	0.39
Final Sat.:	43	641	15	8	668	26	202	48	285	174	131	196
Capacity Analysis Module:												
Vol/Sat:	1.22	1.22	1.22	1.00	1.00	1.00	0.17	0.17	0.17	0.05	0.05	0.05
Crit Moves:	****			****			****			****		
Delay/Veh:	130.5	131	130.5	57.1	57.1	57.1	11.1	11.1	11.1	10.4	10.4	10.4
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
AdjDel/Veh:	130.5	131	130.5	57.1	57.1	57.1	11.1	11.1	11.1	10.4	10.4	10.4
LOS by Move:	F	F	F	F	F	F	B	B	B	B	B	B
ApproachDel:	130.5			57.1			11.1			10.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	130.5			57.1			11.1			10.4		
LOS by Appr:	F			F			B			B		
AllWayAvgQ:	23.8	23.8	23.8	9.5	9.5	9.5	0.2	0.2	0.2	0.0	0.0	0.0

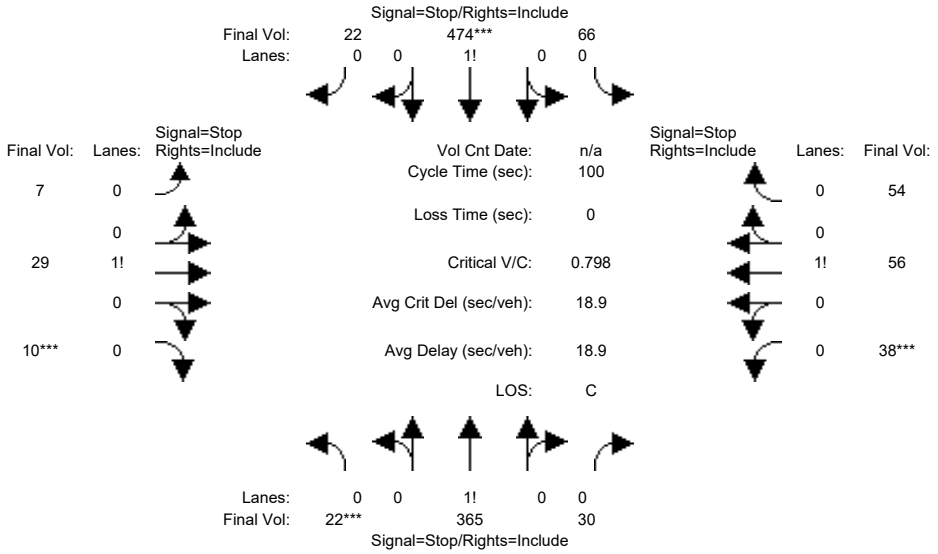
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	22	365	30	66	474	22	7	29	10	38	56	54
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:	22	365	30	66	474	22	7	29	10	38	56	54
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	365	30	66	474	22	7	29	10	38	56	54
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:	22	365	30	66	474	22	7	29	10	38	56	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	365	30	66	474	22	7	29	10	38	56	54
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:	22	365	30	66	474	22	7	29	10	38	56	54
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.88	0.07	0.12	0.84	0.04	0.15	0.63	0.22	0.26	0.38	0.36
Final Sat.:	36	592	49	83	594	28	74	307	106	138	203	196
Capacity Analysis Module:												
Vol/Sat:	0.62	0.62	0.62	0.80	0.80	0.80	0.09	0.09	0.09	0.28	0.28	0.28
Crit Moves:	****			****					****	****		
Delay/Veh:	15.7	15.7	15.7	24.1	24.1	24.1	10.0	10.0	10.0	11.1	11.1	11.1
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
AdjDel/Veh:	15.7	15.7	15.7	24.1	24.1	24.1	10.0	10.0	10.0	11.1	11.1	11.1
LOS by Move:	C	C	C	C	C	C	A	A	A	B	B	B
ApproachDel:	15.7			24.1			10.0			11.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.7			24.1			10.0			11.1		
LOS by Appr:	C			C			A			B		
AllWayAvgQ:	1.4	1.4	1.4	3.1	3.1	3.1	0.1	0.1	0.1	0.3	0.3	0.3

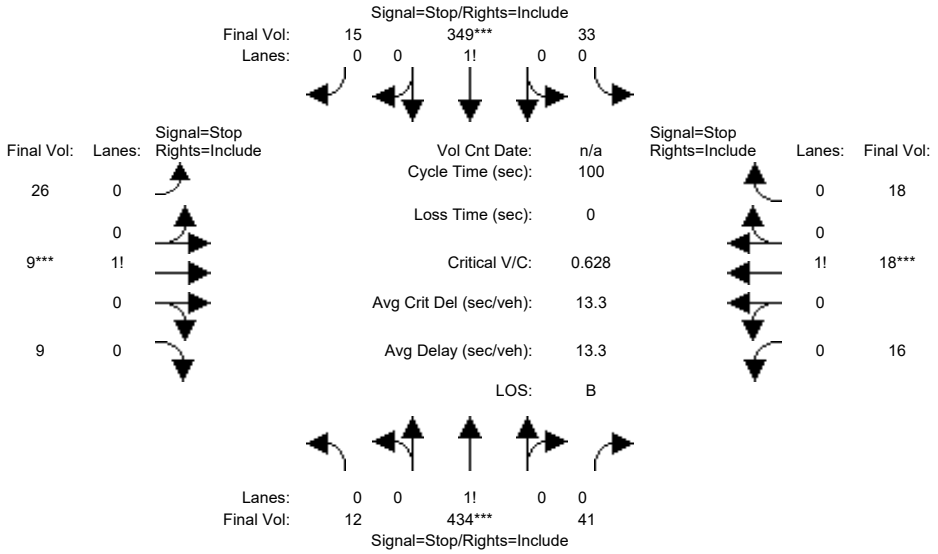
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	12	434	41	33	349	15	26	9	9	16	18	18
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:	12	434	41	33	349	15	26	9	9	16	18	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	434	41	33	349	15	26	9	9	16	18	18
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:	12	434	41	33	349	15	26	9	9	16	18	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	434	41	33	349	15	26	9	9	16	18	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	434	41	33	349	15	26	9	9	16	18	18
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.90	0.08	0.08	0.88	0.04	0.60	0.20	0.20	0.31	0.34	0.35
Final Sat.:	19	691	65	62	660	28	317	110	110	169	191	191
Capacity Analysis Module:												
Vol/Sat:	0.63	0.63	0.63	0.53	0.53	0.53	0.08	0.08	0.08	0.09	0.09	0.09
Crit Moves:	****			****			****			****		
Delay/Veh:	14.7	14.7	14.7	12.6	12.6	12.6	9.3	9.3	9.3	9.2	9.2	9.2
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
AdjDel/Veh:	14.7	14.7	14.7	12.6	12.6	12.6	9.3	9.3	9.3	9.2	9.2	9.2
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:	14.7			12.6			9.3			9.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.7			12.6			9.3			9.2		
LOS by Appr:	B			B			A			A		
AllWayAvgQ:	1.5	1.5	1.5	1.0	1.0	1.0	0.1	0.1	0.1	0.1	0.1	0.1

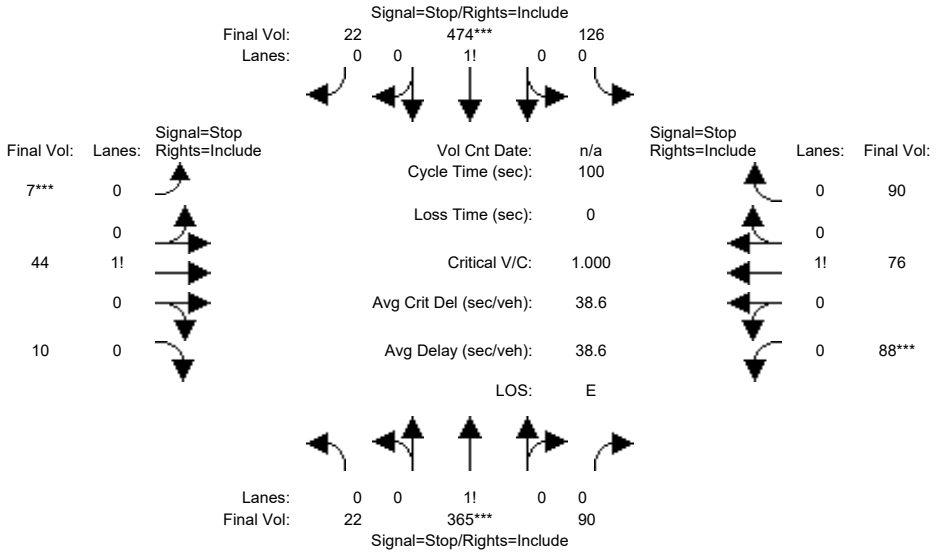
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	22	365	30	66	474	22	7	29	10	38	56	54
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:	22	365	30	66	474	22	7	29	10	38	56	54
Added Vol:	0	0	60	60	0	0	0	15	0	50	20	36
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	365	90	126	474	22	7	44	10	88	76	90
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:	22	365	90	126	474	22	7	44	10	88	76	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	365	90	126	474	22	7	44	10	88	76	90
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:	22	365	90	126	474	22	7	44	10	88	76	90
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.76	0.19	0.20	0.76	0.04	0.11	0.73	0.16	0.35	0.30	0.35
Final Sat.:	28	463	114	126	474	22	50	316	72	179	155	183
Capacity Analysis Module:												
Vol/Sat:	0.79	0.79	0.79	1.00	1.00	1.00	0.14	0.14	0.14	0.49	0.49	0.49
Crit Moves:	****			****			****			****		
Delay/Veh:	26.6	26.6	26.6	59.8	59.8	59.8	11.6	11.6	11.6	15.6	15.6	15.6
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
AdjDel/Veh:	26.6	26.6	26.6	59.8	59.8	59.8	11.6	11.6	11.6	15.6	15.6	15.6
LOS by Move:	D	D	D	F	F	F	B	B	B	C	C	C
ApproachDel:	26.6			59.8			11.6			15.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	26.6			59.8			11.6			15.6		
LOS by Appr:	D			F			B			C		
AllWayAvgQ:	3.0	3.0	3.0	8.8	8.8	8.8	0.1	0.1	0.1	0.8	0.8	0.8

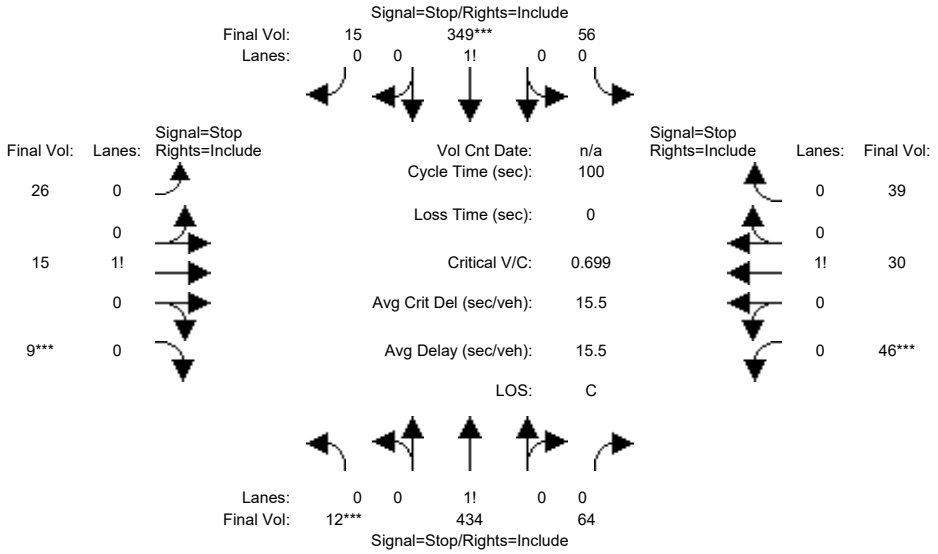
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #206: Clarke Avenue and Schembri Lane/Garden Street



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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	12	434	41	33	349	15	26	9	9	16	18	18
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:	12	434	41	33	349	15	26	9	9	16	18	18
Added Vol:	0	0	23	23	0	0	0	6	0	30	12	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	434	64	56	349	15	26	15	9	46	30	39
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:	12	434	64	56	349	15	26	15	9	46	30	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	434	64	56	349	15	26	15	9	46	30	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	434	64	56	349	15	26	15	9	46	30	39
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.85	0.13	0.13	0.83	0.04	0.52	0.30	0.18	0.40	0.26	0.34
Final Sat.:	17	621	92	93	583	25	257	148	89	214	139	181
Capacity Analysis Module:												
Vol/Sat:	0.70	0.70	0.70	0.60	0.60	0.60	0.10	0.10	0.10	0.22	0.22	0.22
Crit Moves:	****			****					****	****		
Delay/Veh:	17.8	17.8	17.8	14.9	14.9	14.9	9.8	9.8	9.8	10.4	10.4	10.4
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
AdjDel/Veh:	17.8	17.8	17.8	14.9	14.9	14.9	9.8	9.8	9.8	10.4	10.4	10.4
LOS by Move:	C	C	C	B	B	B	A	A	A	B	B	B
ApproachDel:	17.8			14.9			9.8			10.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	17.8			14.9			9.8			10.4		
LOS by Appr:	C			B			A			B		
AllWayAvgQ:	2.0	2.0	2.0	1.3	1.3	1.3	0.1	0.1	0.1	0.2	0.2	0.2

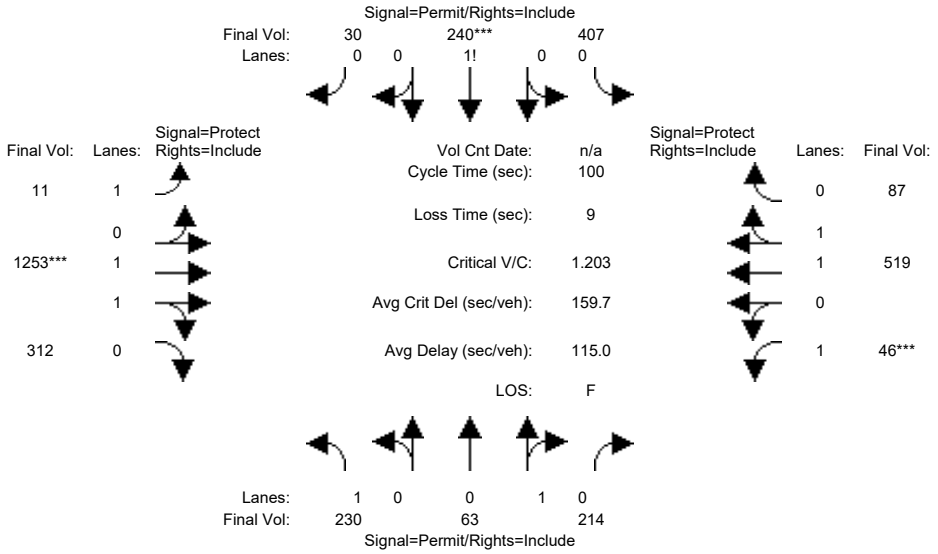
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #1108: Clarke Ave/Bay Rd (new signal)



Street Name:	Clarke Avenue						Bay Road					
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:	230	63	214	407	240	30	11	1253	312	46	519	87
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:	230	63	214	407	240	30	11	1253	312	46	519	87
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	230	63	214	407	240	30	11	1253	312	46	519	87
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:	230	63	214	407	240	30	11	1253	312	46	519	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	230	63	214	407	240	30	11	1253	312	46	519	87
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:	230	63	214	407	240	30	11	1253	312	46	519	87
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.64	0.88	0.88	0.57	0.57	0.57	0.95	0.92	0.92	0.95	0.93	0.93
Lanes:	1.00	0.23	0.77	0.61	0.35	0.04	1.00	1.60	0.40	1.00	1.71	0.29
Final Sat.:	1220	382	1298	654	386	48	1805	2804	698	1805	3024	507
Capacity Analysis Module:												
Vol/Sat:	0.19	0.16	0.16	0.62	0.62	0.62	0.01	0.45	0.45	0.03	0.17	0.17
Crit Moves:				****			****			****		
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.12	0.35	0.35	0.07	0.30	0.30
Volume/Cap:	0.39	0.34	0.34	1.27	1.27	1.27	0.05	1.27	1.27	0.36	0.57	0.57
Delay/Veh:	16.5	15.9	15.9	162.5	163	162.5	38.9	162	161.8	46.2	30.4	30.4
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:	16.5	15.9	15.9	162.5	163	162.5	38.9	162	161.8	46.2	30.4	30.4
LOS by Move:	B	B	B	F	F	F	D	F	F	D	C	C
HCM2kAvgQ:	5	5	5	41	41	41	0	49	49	2	9	9

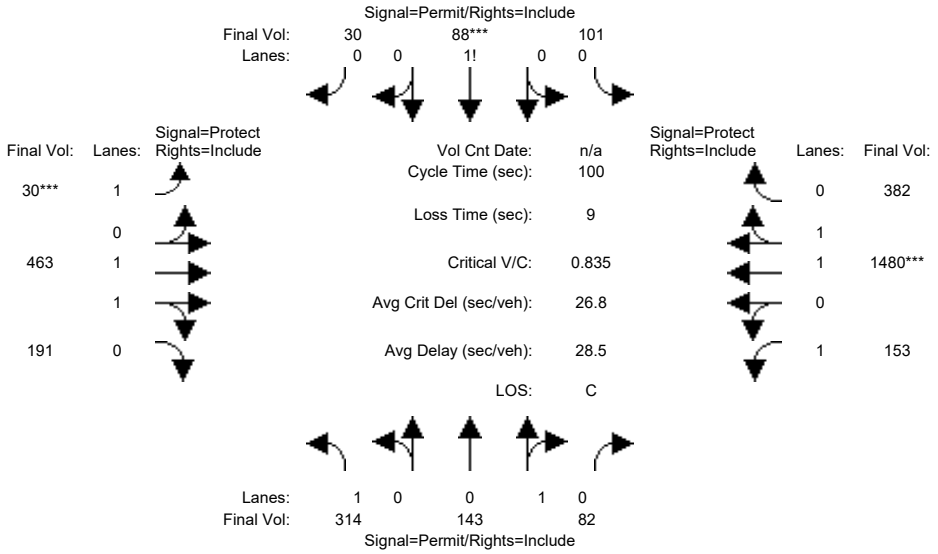
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #1108: Clarke Ave/Bay Rd (new signal)



Street Name:	Clarke Avenue						Bay Road					
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:	314	143	82	101	88	30	30	463	191	153	1480	382
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:	314	143	82	101	88	30	30	463	191	153	1480	382
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	314	143	82	101	88	30	30	463	191	153	1480	382
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:	314	143	82	101	88	30	30	463	191	153	1480	382
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	314	143	82	101	88	30	30	463	191	153	1480	382
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:	314	143	82	101	88	30	30	463	191	153	1480	382
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	0.95	0.95	0.55	0.55	0.55	0.95	0.91	0.91	0.95	0.92	0.92
Lanes:	1.00	0.64	0.36	0.46	0.40	0.14	1.00	1.42	0.58	1.00	1.59	0.41
Final Sat.:	1526	1141	654	478	417	142	1805	2443	1008	1805	2780	718
Capacity Analysis Module:												
Vol/Sat:	0.21	0.13	0.13	0.21	0.21	0.21	0.02	0.19	0.19	0.08	0.53	0.53
Crit Moves:				****			****			****		
Green/Cycle:	0.24	0.24	0.24	0.24	0.24	0.24	0.07	0.46	0.46	0.21	0.60	0.60
Volume/Cap:	0.86	0.53	0.53	0.88	0.88	0.88	0.24	0.41	0.41	0.41	0.88	0.88
Delay/Veh:	55.1	34.3	34.3	65.9	65.9	65.9	44.9	17.9	17.9	35.0	21.9	21.9
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:	55.1	34.3	34.3	65.9	65.9	65.9	44.9	17.9	17.9	35.0	21.9	21.9
LOS by Move:	E	C	C	E	E	E	D	B	B	D	C	C
HCM2kAvgQ:	12	7	7	10	10	10	1	7	7	4	29	29

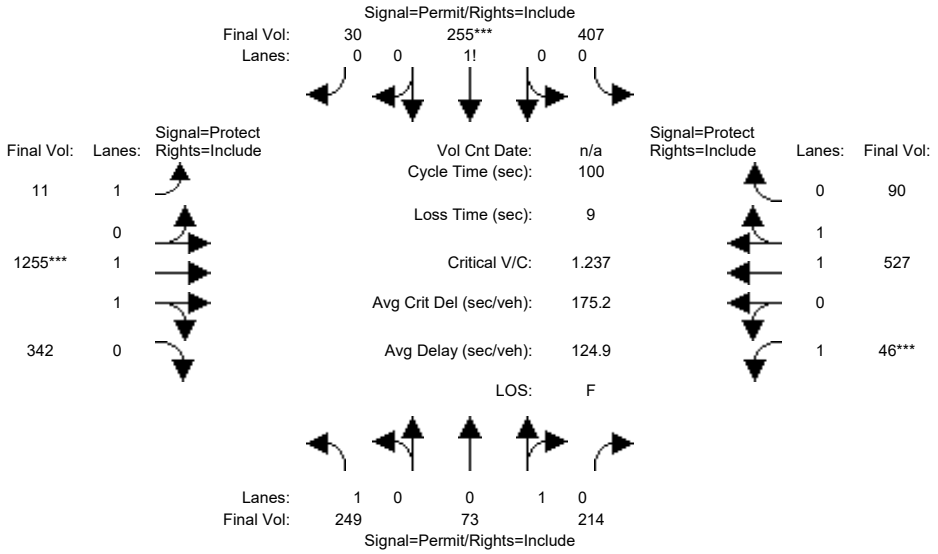
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #1108: Clarke Ave/Bay Rd (new signal)



Street Name:	Clarke Avenue						Bay Road					
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:	249	73	214	407	255	30	11	1255	342	46	527	90
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:	249	73	214	407	255	30	11	1255	342	46	527	90
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	249	73	214	407	255	30	11	1255	342	46	527	90
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:	249	73	214	407	255	30	11	1255	342	46	527	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	249	73	214	407	255	30	11	1255	342	46	527	90
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:	249	73	214	407	255	30	11	1255	342	46	527	90
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.64	0.89	0.89	0.57	0.57	0.57	0.95	0.92	0.92	0.95	0.93	0.93
Lanes:	1.00	0.25	0.75	0.59	0.37	0.04	1.00	1.57	0.43	1.00	1.71	0.29
Final Sat.:	1218	429	1258	633	397	47	1805	2746	748	1805	3016	515
Capacity Analysis Module:												
Vol/Sat:	0.20	0.17	0.17	0.64	0.64	0.64	0.01	0.46	0.46	0.03	0.17	0.17
Crit Moves:				****			****			****		
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.12	0.35	0.35	0.07	0.30	0.30
Volume/Cap:	0.42	0.35	0.35	1.31	1.31	1.31	0.05	1.31	1.31	0.36	0.58	0.58
Delay/Veh:	16.8	15.9	15.9	177.8	178	177.8	39.1	178	177.7	46.2	30.6	30.6
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:	16.8	15.9	15.9	177.8	178	177.8	39.1	178	177.7	46.2	30.6	30.6
LOS by Move:	B	B	B	F	F	F	D	F	F	D	C	C
HCM2kAvgQ:	5	5	5	43	43	43	0	52	52	2	9	9

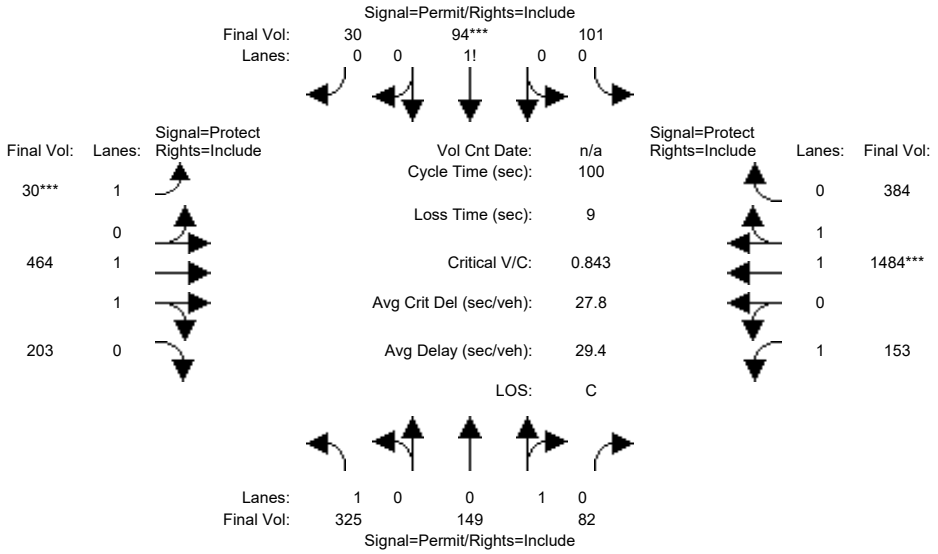
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #1108: Clarke Ave/Bay Rd (new signal)



Street Name:	Clarke Avenue						Bay Road					
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:	325	149	82	101	94	30	30	464	203	153	1484	384
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:	325	149	82	101	94	30	30	464	203	153	1484	384
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	325	149	82	101	94	30	30	464	203	153	1484	384
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:	325	149	82	101	94	30	30	464	203	153	1484	384
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	149	82	101	94	30	30	464	203	153	1484	384
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:	325	149	82	101	94	30	30	464	203	153	1484	384
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	0.95	0.95	0.55	0.55	0.55	0.95	0.91	0.91	0.95	0.92	0.92
Lanes:	1.00	0.65	0.35	0.45	0.42	0.13	1.00	1.39	0.61	1.00	1.59	0.41
Final Sat.:	1522	1161	639	466	433	138	1805	2396	1048	1805	2779	719
Capacity Analysis Module:												
Vol/Sat:	0.21	0.13	0.13	0.22	0.22	0.22	0.02	0.19	0.19	0.08	0.53	0.53
Crit Moves:				****			****			****		
Green/Cycle:	0.24	0.24	0.24	0.24	0.24	0.24	0.07	0.46	0.46	0.20	0.60	0.60
Volume/Cap:	0.88	0.53	0.53	0.89	0.89	0.89	0.24	0.42	0.42	0.42	0.89	0.89
Delay/Veh:	57.3	34.1	34.1	67.1	67.1	67.1	44.9	18.0	18.0	35.5	22.8	22.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.3	34.1	34.1	67.1	67.1	67.1	44.9	18.0	18.0	35.5	22.8	22.8
LOS by Move:	E	C	C	E	E	E	D	B	B	D	C	C
HCM2kAvgQ:	13	7	7	10	10	10	1	7	7	4	30	30

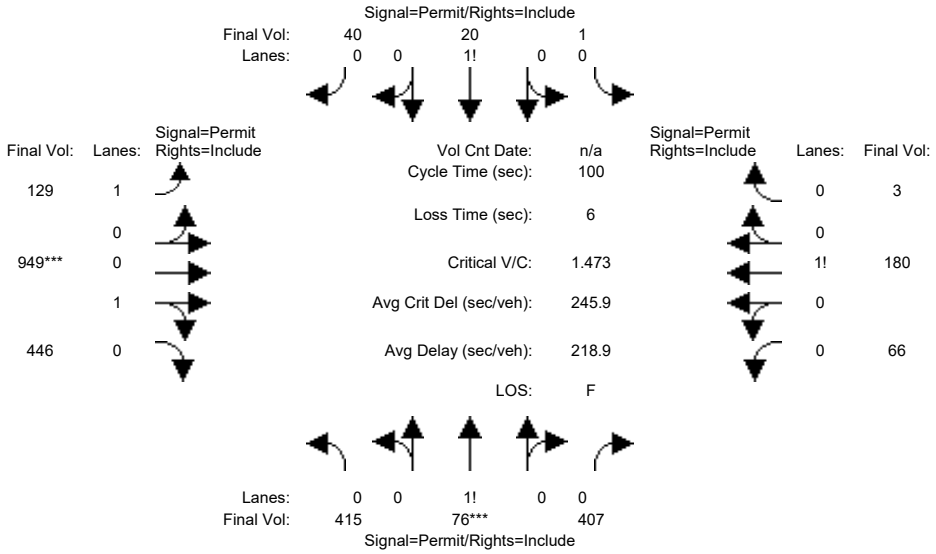
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj AM No Loop Rd

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	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:	415	76	407	1	20	40	129	949	446	66	180	3
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:	415	76	407	1	20	40	129	949	446	66	180	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	415	76	407	1	20	40	129	949	446	66	180	3
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:	415	76	407	1	20	40	129	949	446	66	180	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	415	76	407	1	20	40	129	949	446	66	180	3
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:	415	76	407	1	20	40	129	949	446	66	180	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	0.77	0.90	0.90	0.90	0.65	0.95	0.95	0.22	0.22	0.22
Lanes:	0.47	0.08	0.45	0.02	0.33	0.65	1.00	0.68	0.32	0.27	0.72	0.01
Final Sat.:	676	124	663	28	564	1127	1235	1231	578	111	303	5
Capacity Analysis Module:												
Vol/Sat:	0.61	0.61	0.61	0.04	0.04	0.04	0.10	0.77	0.77	0.59	0.59	0.59
Crit Moves:	****						****					
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.42	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	1.47	1.47	1.47	0.09	0.09	0.09	0.20	1.47	1.47	1.14	1.14	1.14
Delay/Veh:	251.1	251	251.1	17.7	17.7	17.7	12.8	243	242.6	125.8	126	125.8
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:	251.1	251	251.1	17.7	17.7	17.7	12.8	243	242.6	125.8	126	125.8
LOS by Move:	F	F	F	B	B	B	B	F	F	F	F	F
HCM2kAvgQ:	64	64	64	1	1	1	2	98	98	15	15	15

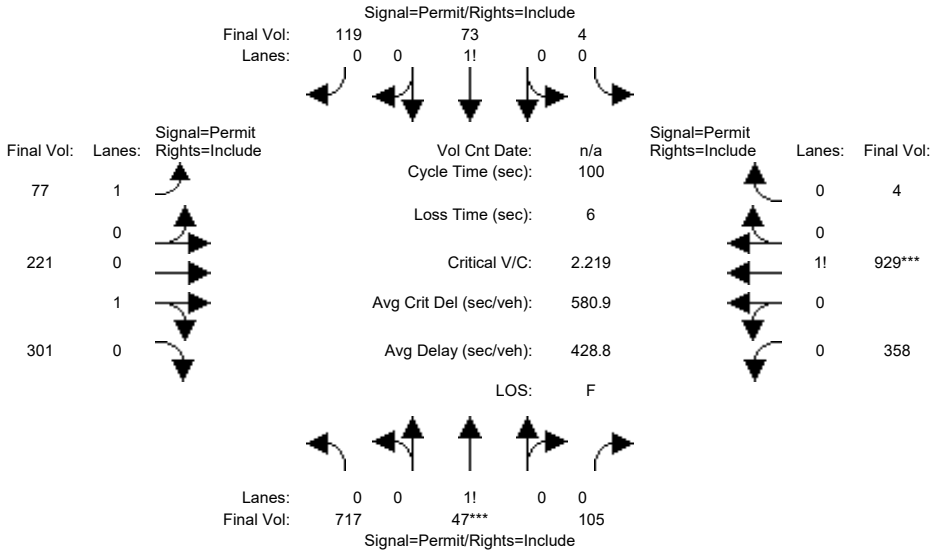
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul No Proj PM No Loop Rd

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	0	10	10	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:	717	47	105	4	73	119	77	221	301	358	929	4
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:	717	47	105	4	73	119	77	221	301	358	929	4
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	717	47	105	4	73	119	77	221	301	358	929	4
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:	717	47	105	4	73	119	77	221	301	358	929	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	717	47	105	4	73	119	77	221	301	358	929	4
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:	717	47	105	4	73	119	77	221	301	358	929	4
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.55	0.55	0.55	0.91	0.91	0.91	0.61	0.91	0.91	0.54	0.54	0.54
Lanes:	0.83	0.05	0.12	0.02	0.37	0.61	1.00	0.42	0.58	0.27	0.72	0.01
Final Sat.:	868	57	127	35	644	1051	1157	734	1000	284	737	3
Capacity Analysis Module:												
Vol/Sat:	0.83	0.83	0.83	0.11	0.11	0.11	0.07	0.30	0.30	1.26	1.26	1.26
Crit Moves:	****									****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	2.22	2.22	2.22	0.30	0.30	0.30	0.12	0.53	0.53	2.22	2.22	2.22
Delay/Veh:	588.4	588	588.4	22.5	22.5	22.5	10.1	13.9	13.9	575.9	576	575.9
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:	588.4	588	588.4	22.5	22.5	22.5	10.1	13.9	13.9	575.9	576	575.9
LOS by Move:	F	F	F	C	C	C	B	B	B	F	F	F
HCM2kAvgQ:	86	86	86	4	4	4	1	10	10	126	126	126

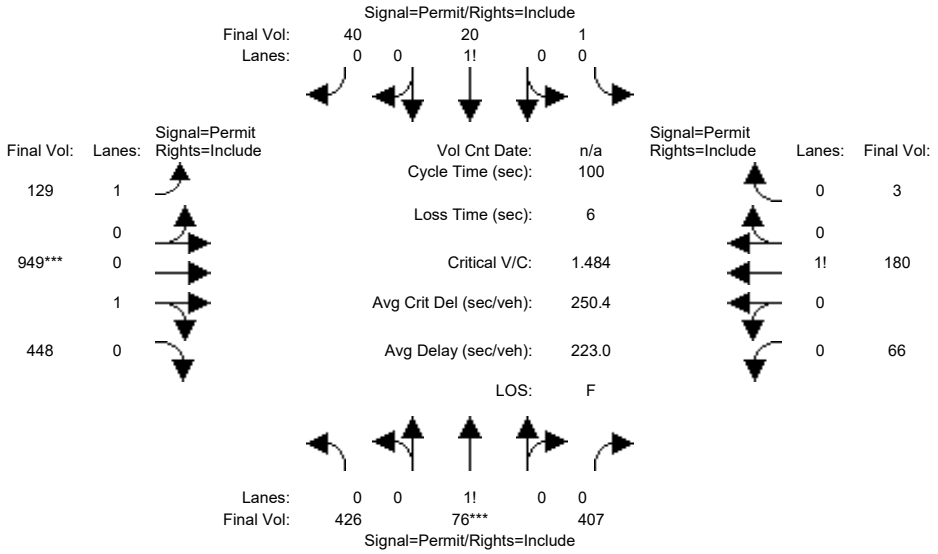
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul+Proj AM No Loop Rd

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	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:	426	76	407	1	20	40	129	949	448	66	180	3
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:	426	76	407	1	20	40	129	949	448	66	180	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	426	76	407	1	20	40	129	949	448	66	180	3
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:	426	76	407	1	20	40	129	949	448	66	180	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	426	76	407	1	20	40	129	949	448	66	180	3
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:	426	76	407	1	20	40	129	949	448	66	180	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	0.77	0.90	0.90	0.90	0.65	0.95	0.95	0.22	0.22	0.22
Lanes:	0.47	0.08	0.45	0.02	0.33	0.65	1.00	0.68	0.32	0.27	0.72	0.01
Final Sat.:	685	122	654	28	564	1127	1237	1229	580	111	303	5
Capacity Analysis Module:												
Vol/Sat:	0.62	0.62	0.62	0.04	0.04	0.04	0.10	0.77	0.77	0.59	0.59	0.59
Crit Moves:	****						****					
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.42	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	1.48	1.48	1.48	0.08	0.08	0.08	0.20	1.48	1.48	1.14	1.14	1.14
Delay/Veh:	255.3	255	255.3	17.5	17.5	17.5	13.0	247	247.3	128.2	128	128.2
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:	255.3	255	255.3	17.5	17.5	17.5	13.0	247	247.3	128.2	128	128.2
LOS by Move:	F	F	F	B	B	B	B	F	F	F	F	F
HCM2kAvgQ:	65	65	65	1	1	1	2	99	99	15	15	15

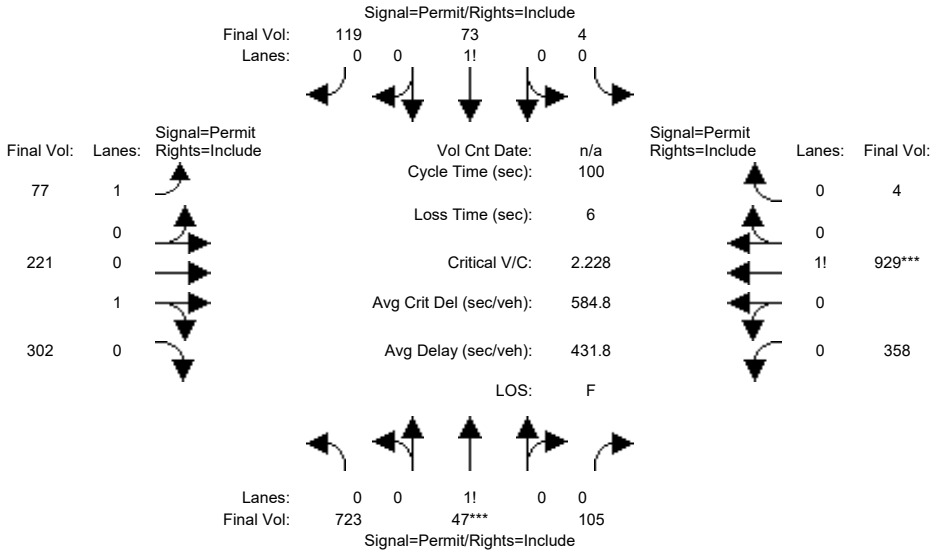
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumul+Proj PM No Loop Rd

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	0	10	10	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:	723	47	105	4	73	119	77	221	302	358	929	4
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:	723	47	105	4	73	119	77	221	302	358	929	4
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	723	47	105	4	73	119	77	221	302	358	929	4
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:	723	47	105	4	73	119	77	221	302	358	929	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	723	47	105	4	73	119	77	221	302	358	929	4
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:	723	47	105	4	73	119	77	221	302	358	929	4
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.55	0.55	0.55	0.91	0.91	0.91	0.61	0.91	0.91	0.54	0.54	0.54
Lanes:	0.83	0.05	0.12	0.02	0.37	0.61	1.00	0.42	0.58	0.27	0.72	0.01
Final Sat.:	870	57	126	35	644	1051	1161	733	1002	283	736	3
Capacity Analysis Module:												
Vol/Sat:	0.83	0.83	0.83	0.11	0.11	0.11	0.07	0.30	0.30	1.26	1.26	1.26
Crit Moves:	****									****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	2.23	2.23	2.23	0.30	0.30	0.30	0.12	0.53	0.53	2.23	2.23	2.23
Delay/Veh:	592.1	592	592.1	22.4	22.4	22.4	10.1	14.0	14.0	579.8	580	579.8
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:	592.1	592	592.1	22.4	22.4	22.4	10.1	14.0	14.0	579.8	580	579.8
LOS by Move:	F	F	F	C	C	C	B	B	B	F	F	F
HCM2kAvgQ:	86	86	86	4	4	4	1	10	10	127	127	127

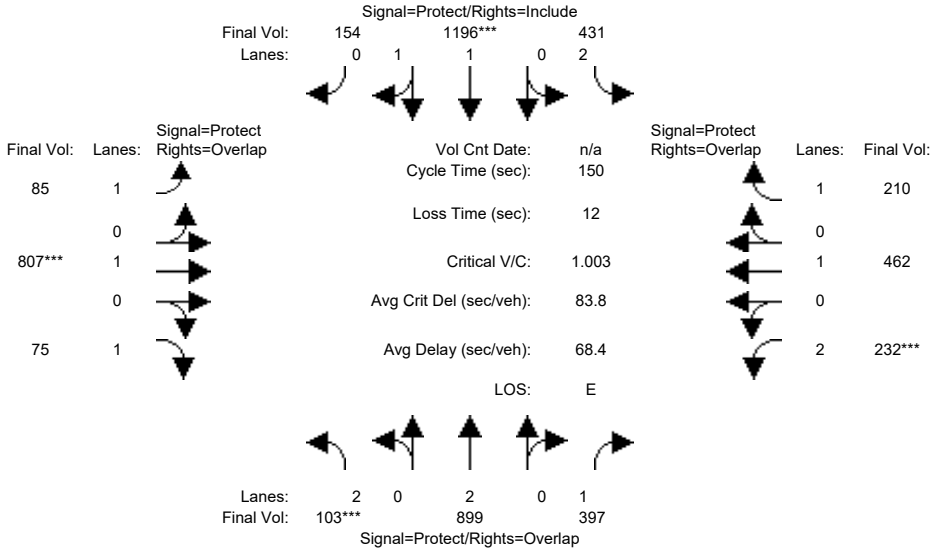
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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:	103	894	397	429	1190	154	85	777	75	232	437	208
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:	103	894	397	429	1190	154	85	777	75	232	437	208
Added Vol:	0	5	0	2	6	0	0	30	0	0	25	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	899	397	431	1196	154	85	807	75	232	462	210
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:	103	899	397	431	1196	154	85	807	75	232	462	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	899	397	431	1196	154	85	807	75	232	462	210
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:	103	899	397	431	1196	154	85	807	75	232	462	210
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.92	0.83	0.89	0.91	0.91	0.93	0.98	0.83	0.90	0.98	0.83
Lanes:	2.00	2.00	1.00	2.00	1.77	0.23	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3400	3505	1568	3400	3053	393	1769	1862	1583	3432	1862	1583
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.25	0.13	0.39	0.39	0.05	0.43	0.05	0.07	0.25	0.13
Crit Moves:	****				****			****			****	
Green/Cycle:	0.05	0.29	0.35	0.14	0.38	0.38	0.08	0.42	0.47	0.07	0.41	0.55
Volume/Cap:	0.65	0.89	0.72	0.89	1.02	1.02	0.60	1.02	0.10	1.02	0.60	0.24
Delay/Veh:	79.4	61.2	46.4	81.6	76.8	76.8	74.0	81.0	22.1	135.7	36.0	17.4
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:	79.4	61.2	46.4	81.6	76.8	76.8	74.0	81.0	22.1	135.7	36.0	17.4
LOS by Move:	E	E	D	F	E	E	E	F	C	F	D	B
HCM2kAvgQ:	4	24	17	13	40	40	5	45	2	9	17	5

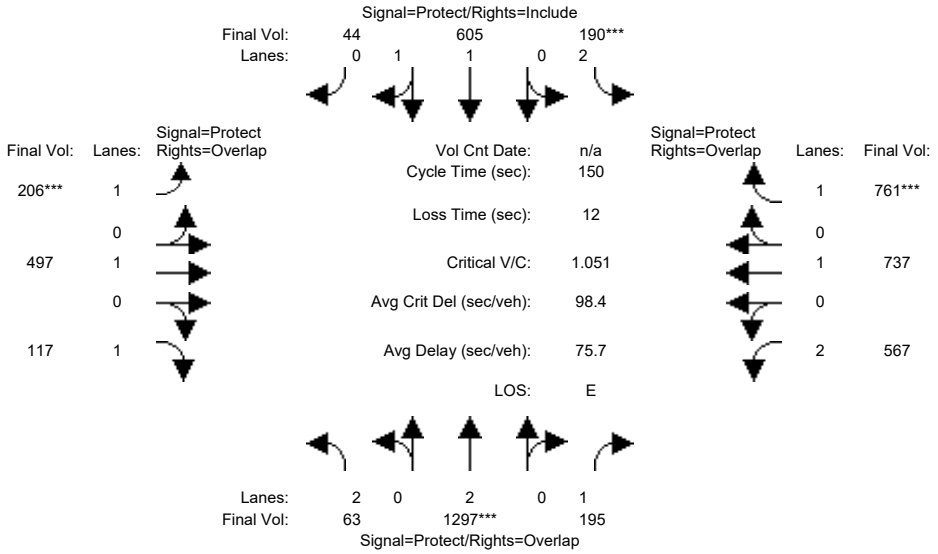
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd

Intersection #11: University Avenue and Bay Road



Street Name:	University Avenue						Bay Road					
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:	63	1294	195	189	603	44	206	485	117	567	722	760
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:	63	1294	195	189	603	44	206	485	117	567	722	760
Added Vol:	0	3	0	1	2	0	0	12	0	0	15	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	1297	195	190	605	44	206	497	117	567	737	761
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:	63	1297	195	190	605	44	206	497	117	567	737	761
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	1297	195	190	605	44	206	497	117	567	737	761
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:	63	1297	195	190	605	44	206	497	117	567	737	761
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.92	0.83	0.89	0.91	0.91	0.93	0.98	0.83	0.90	0.98	0.83
Lanes:	2.00	2.00	1.00	2.00	1.86	0.14	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3400	3505	1568	3400	3235	235	1769	1862	1583	3432	1862	1583
Capacity Analysis Module:												
Vol/Sat:	0.02	0.37	0.12	0.06	0.19	0.19	0.12	0.27	0.07	0.17	0.40	0.48
Crit Moves:		****		****			****					****
Green/Cycle:	0.08	0.35	0.55	0.05	0.32	0.32	0.11	0.32	0.40	0.20	0.40	0.46
Volume/Cap:	0.23	1.05	0.23	1.05	0.58	0.58	1.05	0.84	0.19	0.84	0.98	1.05
Delay/Veh:	65.0	88.9	17.6	152.2	42.9	42.9	145.2	57.9	29.4	67.1	71.7	88.5
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:	65.0	88.9	17.6	152.2	42.9	42.9	145.2	57.9	29.4	67.1	71.7	88.5
LOS by Move:	E	F	B	F	D	D	F	E	C	E	E	F
HCM2kAvgQ:	2	40	4	8	13	13	14	23	3	15	39	44

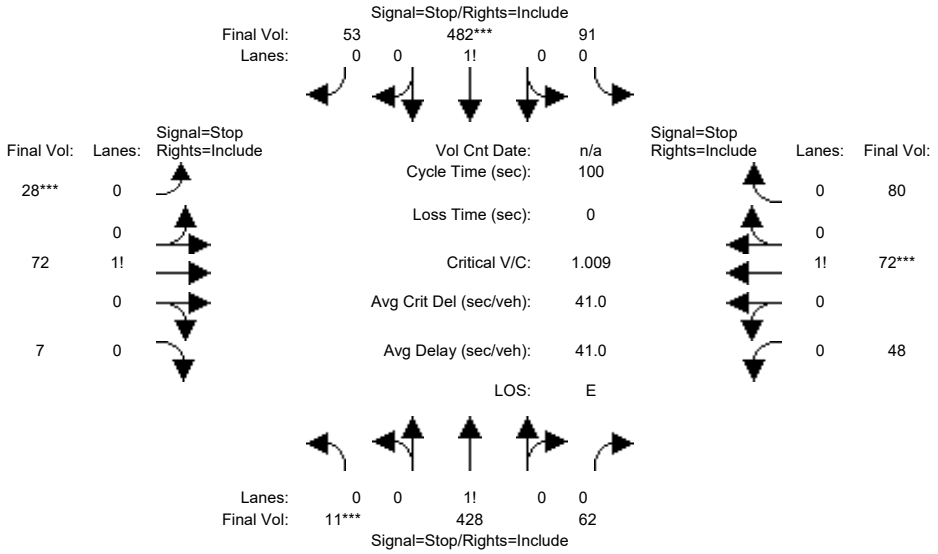
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cum+proj AM with Loop Rd

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	11	399	62	91	437	53	28	72	7	48	72	80
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:	11	399	62	91	437	53	28	72	7	48	72	80
Added Vol:	0	29	0	0	45	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	428	62	91	482	53	28	72	7	48	72	80
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:	11	428	62	91	482	53	28	72	7	48	72	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	428	62	91	482	53	28	72	7	48	72	80
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:	11	428	62	91	482	53	28	72	7	48	72	80
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.86	0.12	0.15	0.77	0.08	0.26	0.67	0.07	0.24	0.36	0.40
Final Sat.:	13	514	74	90	477	53	118	303	29	119	178	198
Capacity Analysis Module:												
Vol/Sat:	0.83	0.83	0.83	1.01	1.01	1.01	0.24	0.24	0.24	0.40	0.40	0.40
Crit Moves:	****				****		****				****	
Delay/Veh:	31.0	31.0	31.0	62.3	62.3	62.3	12.6	12.6	12.6	14.2	14.2	14.2
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
AdjDel/Veh:	31.0	31.0	31.0	62.3	62.3	62.3	12.6	12.6	12.6	14.2	14.2	14.2
LOS by Move:	D	D	D	F	F	F	B	B	B	B	B	B
ApproachDel:		31.0			62.3			12.6			14.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		31.0			62.3			12.6			14.2	
LOS by Appr:		D			F			B			B	
AllWayAvgQ:	3.7	3.7	3.7	9.2	9.2	9.2	0.3	0.3	0.3	0.6	0.6	0.6

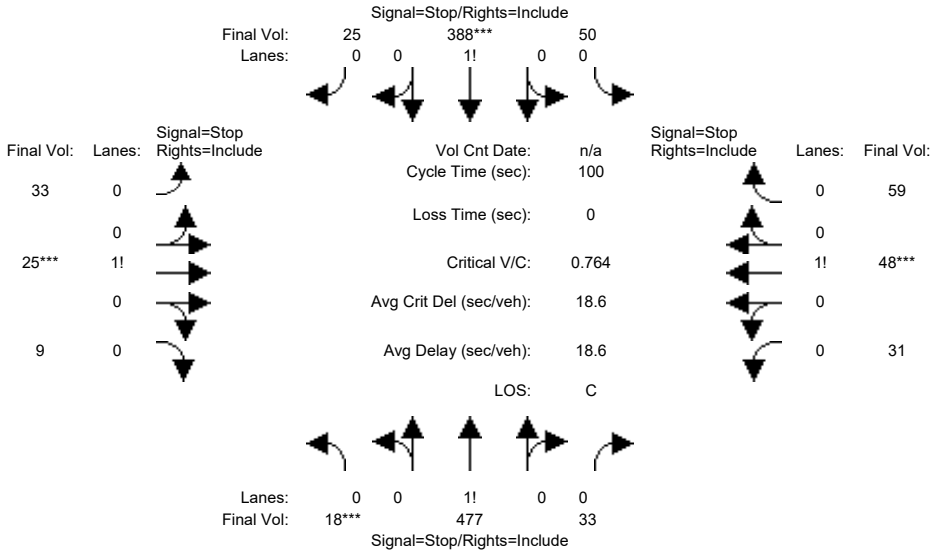
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cum+proj PM with Loop Rd

Intersection #22: Clarke Avenue and Weeks Street



Street Name:	Clarke Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	18	460	33	50	371	25	33	25	9	31	48	59
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:	18	460	33	50	371	25	33	25	9	31	48	59
Added Vol:	0	17	0	0	17	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	477	33	50	388	25	33	25	9	31	48	59
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:	18	477	33	50	388	25	33	25	9	31	48	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	477	33	50	388	25	33	25	9	31	48	59
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:	18	477	33	50	388	25	33	25	9	31	48	59
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.91	0.06	0.11	0.84	0.05	0.50	0.37	0.13	0.22	0.35	0.43
Final Sat.:	24	624	43	73	564	36	233	177	64	117	181	222
Capacity Analysis Module:												
Vol/Sat:	0.76	0.76	0.76	0.69	0.69	0.69	0.14	0.14	0.14	0.27	0.27	0.27
Crit Moves:	****				****			****			****	
Delay/Veh:	22.0	22.0	22.0	18.3	18.3	18.3	10.5	10.5	10.5	11.0	11.0	11.0
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
AdjDel/Veh:	22.0	22.0	22.0	18.3	18.3	18.3	10.5	10.5	10.5	11.0	11.0	11.0
LOS by Move:	C	C	C	C	C	C	B	B	B	B	B	B
ApproachDel:	22.0			18.3			10.5			11.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	22.0			18.3			10.5			11.0		
LOS by Appr:	C			C			B			B		
AllWayAvgQ:	2.7	2.7	2.7	1.9	1.9	1.9	0.1	0.1	0.1	0.3	0.3	0.3

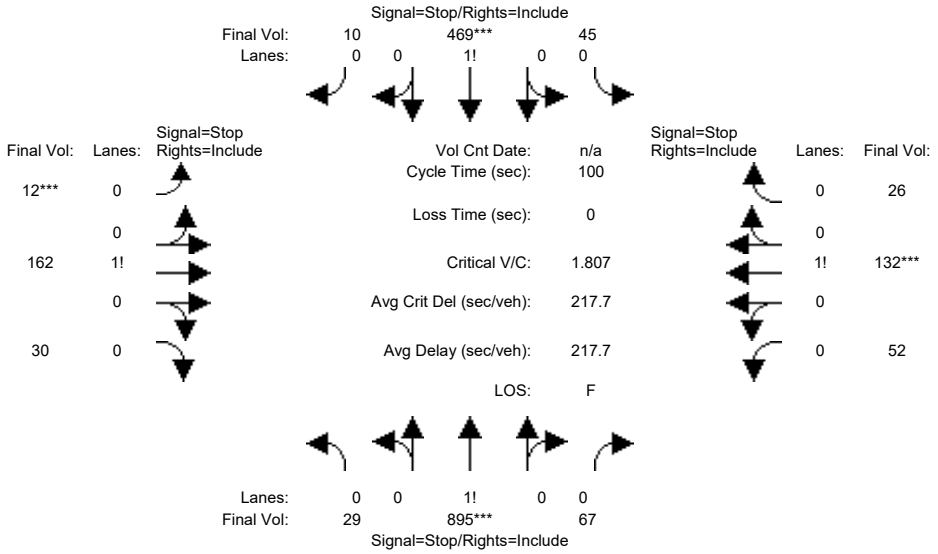
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cum+proj AM with Loop Rd

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	29	884	67	45	467	10	12	162	30	52	132	26
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:	29	884	67	45	467	10	12	162	30	52	132	26
Added Vol:	0	11	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	895	67	45	469	10	12	162	30	52	132	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	895	67	45	469	10	12	162	30	52	132	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	895	67	45	469	10	12	162	30	52	132	26
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:	29	895	67	45	469	10	12	162	30	52	132	26
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.90	0.07	0.09	0.89	0.02	0.06	0.79	0.15	0.25	0.63	0.12
Final Sat.:	16	495	37	46	484	10	27	358	66	112	283	56
Capacity Analysis Module:												
Vol/Sat:	1.81	1.81	1.81	0.97	0.97	0.97	0.45	0.45	0.45	0.47	0.47	0.47
Crit Moves:		****			****		****				****	
Delay/Veh:	386.7	387	386.7	56.5	56.5	56.5	16.7	16.7	16.7	17.0	17.0	17.0
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
AdjDel/Veh:	386.7	387	386.7	56.5	56.5	56.5	16.7	16.7	16.7	17.0	17.0	17.0
LOS by Move:	F	F	F	F	F	F	C	C	C	C	C	C
ApproachDel:	386.7			56.5			16.7			17.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	386.7			56.5			16.7			17.0		
LOS by Appr:	F			F			C			C		
AllWayAvgQ:	57.5	57.5	57.5	7.0	7.0	7.0	0.7	0.7	0.7	0.8	0.8	0.8

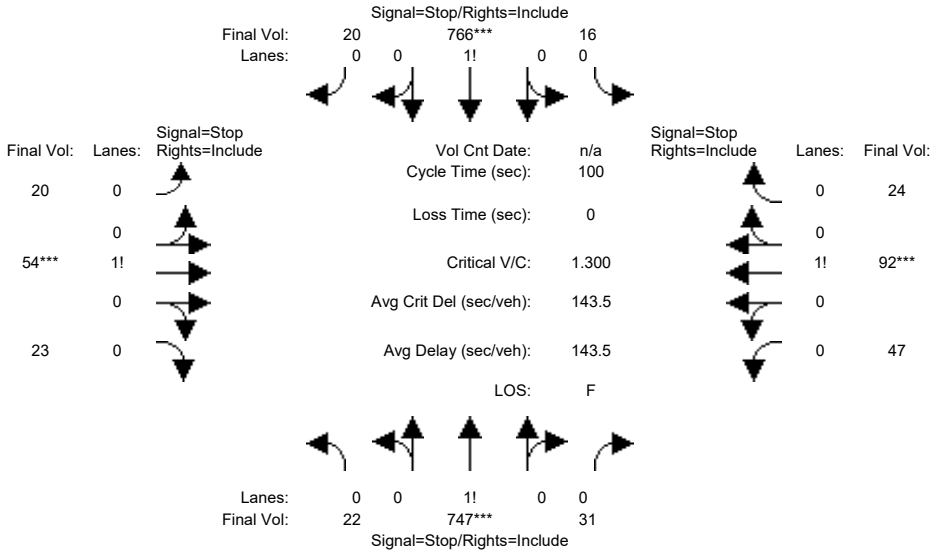
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Cum+proj PM with Loop Rd

Intersection #28: Pulgas Avenue and Weeks Street



Street Name:	Pulgas Avenue						Weeks Street					
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	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	22	741	31	16	765	20	20	54	23	47	92	24
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:	22	741	31	16	765	20	20	54	23	47	92	24
Added Vol:	0	6	0	0	1	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	747	31	16	766	20	20	54	23	47	92	24
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:	22	747	31	16	766	20	20	54	23	47	92	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	747	31	16	766	20	20	54	23	47	92	24
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:	22	747	31	16	766	20	20	54	23	47	92	24
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.93	0.04	0.02	0.96	0.02	0.20	0.56	0.24	0.29	0.56	0.15
Final Sat.:	17	577	24	12	589	15	97	261	111	141	276	72
Capacity Analysis Module:												
Vol/Sat:	1.30	1.30	1.30	1.30	1.30	1.30	0.21	0.21	0.21	0.33	0.33	0.33
Crit Moves:		****			****			****			****	
Delay/Veh:	163.6	164	163.6	165.6	166	165.6	12.4	12.4	12.4	13.8	13.8	13.8
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
AdjDel/Veh:	163.6	164	163.6	165.6	166	165.6	12.4	12.4	12.4	13.8	13.8	13.8
LOS by Move:	F	F	F	F	F	F	B	B	B	B	B	B
ApproachDel:	163.6			165.6			12.4			13.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	163.6			165.6			12.4			13.8		
LOS by Appr:	F			F			B			B		
AllWayAvgQ:	26.6	26.6	26.6	26.9	26.9	26.9	0.2	0.2	0.2	0.5	0.5	0.5

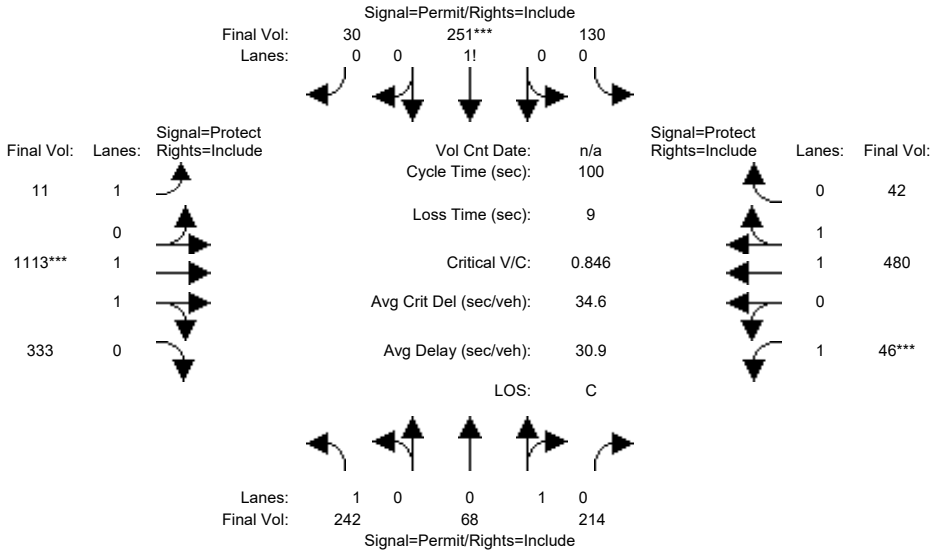
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd

Intersection #1108: Clarke Ave/Bay Rd (new signal)



Street Name:	Clarke Avenue						Bay Road					
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:	242	68	214	130	251	30	11	1113	333	46	480	42
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:	242	68	214	130	251	30	11	1113	333	46	480	42
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	242	68	214	130	251	30	11	1113	333	46	480	42
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:	242	68	214	130	251	30	11	1113	333	46	480	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	242	68	214	130	251	30	11	1113	333	46	480	42
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:	242	68	214	130	251	30	11	1113	333	46	480	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.73	0.89	0.89	0.66	0.66	0.66	0.95	0.92	0.92	0.95	0.94	0.94
Lanes:	1.00	0.24	0.76	0.32	0.61	0.07	1.00	1.54	0.46	1.00	1.84	0.16
Final Sat.:	1387	406	1277	394	760	91	1805	2684	803	1805	3280	287
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.33	0.33	0.33	0.01	0.41	0.41	0.03	0.15	0.15
Crit Moves:					****			****		****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.17	0.47	0.47	0.07	0.36	0.36
Volume/Cap:	0.47	0.45	0.45	0.89	0.89	0.89	0.04	0.89	0.89	0.36	0.40	0.40
Delay/Veh:	24.5	24.2	24.2	47.7	47.7	47.7	34.4	30.5	30.5	46.2	23.9	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:	24.5	24.2	24.2	47.7	47.7	47.7	34.4	30.5	30.5	46.2	23.9	23.9
LOS by Move:	C	C	C	D	D	D	C	C	C	D	C	C
HCM2kAvgQ:	6	7	7	15	15	15	0	25	25	2	6	6

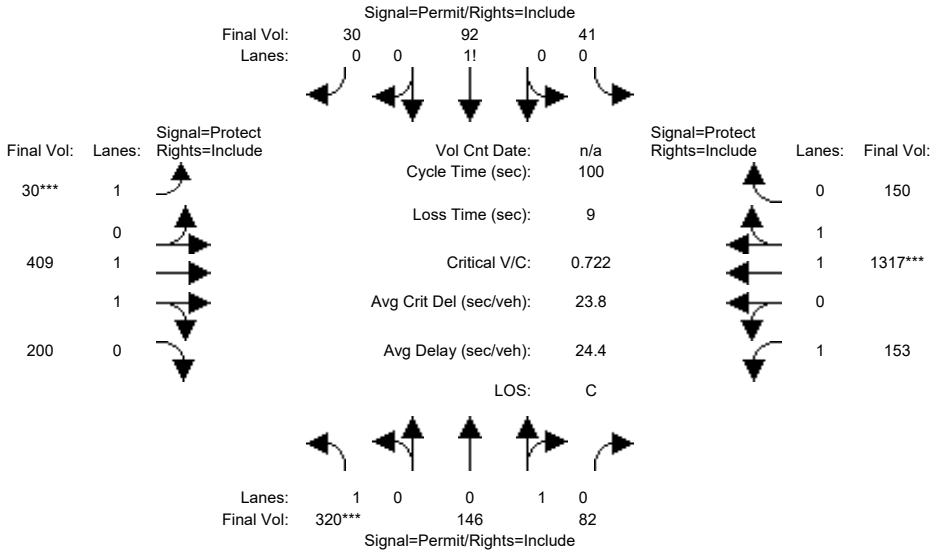
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Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd

Intersection #1108: Clarke Ave/Bay Rd (new signal)



Street Name:	Clarke Avenue						Bay Road					
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:	320	146	82	41	92	30	30	409	200	153	1317	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:	320	146	82	41	92	30	30	409	200	153	1317	150
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	320	146	82	41	92	30	30	409	200	153	1317	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:	320	146	82	41	92	30	30	409	200	153	1317	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	320	146	82	41	92	30	30	409	200	153	1317	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:	320	146	82	41	92	30	30	409	200	153	1317	150
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.74	0.95	0.95	0.86	0.86	0.86	0.95	0.90	0.90	0.95	0.94	0.94
Lanes:	1.00	0.64	0.36	0.25	0.57	0.18	1.00	1.34	0.66	1.00	1.80	0.20
Final Sat.:	1402	1151	646	413	926	302	1805	2306	1127	1805	3192	364
Capacity Analysis Module:												
Vol/Sat:	0.23	0.13	0.13	0.10	0.10	0.10	0.02	0.18	0.18	0.08	0.41	0.41
Crit Moves:	****						****				****	
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.07	0.41	0.41	0.20	0.54	0.54
Volume/Cap:	0.76	0.42	0.42	0.33	0.33	0.33	0.24	0.43	0.43	0.43	0.76	0.76
Delay/Veh:	39.9	28.7	28.7	27.7	27.7	27.7	44.9	21.1	21.1	36.0	19.8	19.8
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:	39.9	28.7	28.7	27.7	27.7	27.7	44.9	21.1	21.1	36.0	19.8	19.8
LOS by Move:	D	C	C	C	C	C	D	C	C	D	B	B
HCM2kAvgQ:	11	6	6	4	4	4	1	7	7	4	20	20

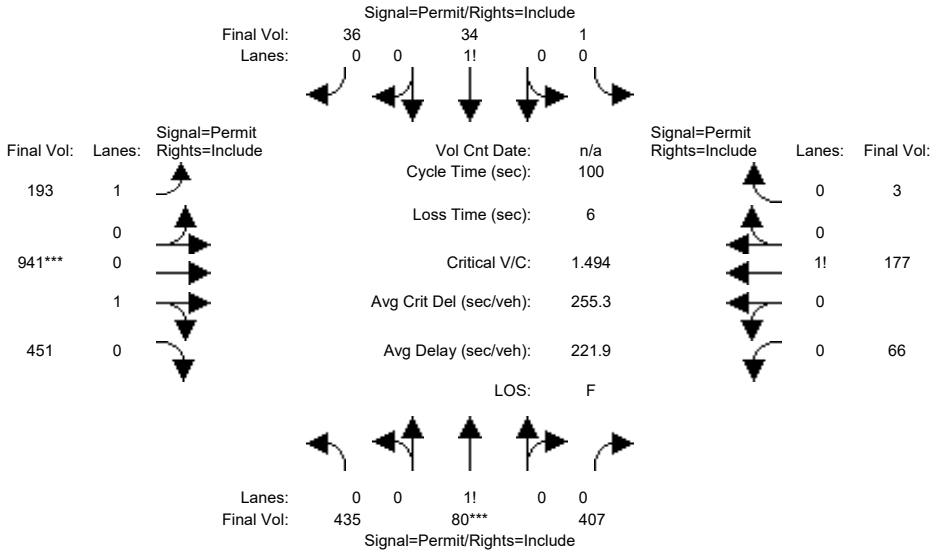
Note: Queue reported is the number of cars per lane.

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Hexagon Transportation Consultants
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	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:	435	80	407	1	34	36	193	941	451	66	177	3
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:	435	80	407	1	34	36	193	941	451	66	177	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	435	80	407	1	34	36	193	941	451	66	177	3
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:	435	80	407	1	34	36	193	941	451	66	177	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	435	80	407	1	34	36	193	941	451	66	177	3
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:	435	80	407	1	34	36	193	941	451	66	177	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	0.77	0.93	0.93	0.93	0.65	0.95	0.95	0.22	0.22	0.22
Lanes:	0.47	0.09	0.44	0.01	0.48	0.51	1.00	0.68	0.32	0.27	0.72	0.01
Final Sat.:	686	126	642	25	843	892	1241	1221	585	112	300	5
Capacity Analysis Module:												
Vol/Sat:	0.63	0.63	0.63	0.04	0.04	0.04	0.16	0.77	0.77	0.59	0.59	0.59
Crit Moves:		****						****				
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.42	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	1.49	1.49	1.49	0.10	0.10	0.10	0.30	1.49	1.49	1.14	1.14	1.14
Delay/Veh:	259.7	260	259.7	17.3	17.3	17.3	14.2	252	252.3	129.7	130	129.7
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:	259.7	260	259.7	17.3	17.3	17.3	14.2	252	252.3	129.7	130	129.7
LOS by Move:	F	F	F	B	B	B	B	F	F	F	F	F
HCM2kAvgQ:	67	67	67	1	1	1	4	99	99	15	15	15

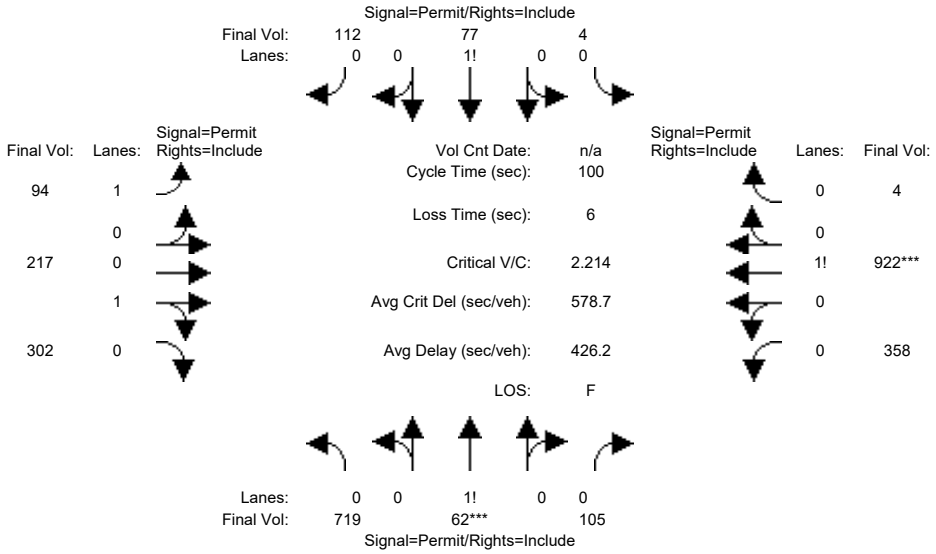
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	0	10	10	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:	719	62	105	4	77	112	94	217	302	358	922	4
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:	719	62	105	4	77	112	94	217	302	358	922	4
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	719	62	105	4	77	112	94	217	302	358	922	4
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:	719	62	105	4	77	112	94	217	302	358	922	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	719	62	105	4	77	112	94	217	302	358	922	4
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:	719	62	105	4	77	112	94	217	302	358	922	4
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.56	0.56	0.56	0.91	0.91	0.91	0.61	0.91	0.91	0.54	0.54	0.54
Lanes:	0.81	0.07	0.12	0.02	0.40	0.58	1.00	0.42	0.58	0.28	0.71	0.01
Final Sat.:	866	75	127	36	693	1008	1165	725	1009	286	737	3
Capacity Analysis Module:												
Vol/Sat:	0.83	0.83	0.83	0.11	0.11	0.11	0.08	0.30	0.30	1.25	1.25	1.25
Crit Moves:		****									****	
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	2.21	2.21	2.21	0.30	0.30	0.30	0.14	0.53	0.53	2.21	2.21	2.21
Delay/Veh:	585.8	586	585.8	22.2	22.2	22.2	10.4	14.0	14.0	573.8	574	573.8
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:	585.8	586	585.8	22.2	22.2	22.2	10.4	14.0	14.0	573.8	574	573.8
LOS by Move:	F	F	F	C	C	C	B	B	B	F	F	F
HCM2kAvgQ:	87	87	87	4	4	4	1	10	10	125	125	125

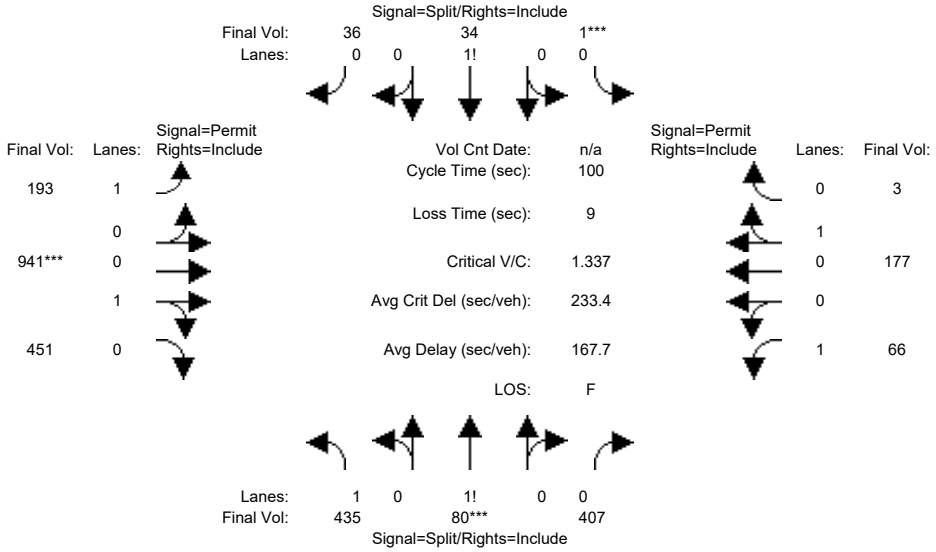
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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd + Miti

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	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:	435	80	407	1	34	36	193	941	451	66	177	3
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:	435	80	407	1	34	36	193	941	451	66	177	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	435	80	407	1	34	36	193	941	451	66	177	3
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:	435	80	407	1	34	36	193	941	451	66	177	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	435	80	407	1	34	36	193	941	451	66	177	3
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:	435	80	407	1	34	36	193	941	451	66	177	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.91	0.91	0.93	0.93	0.93	0.61	0.95	0.95	0.08	1.00	1.00
Lanes:	1.31	0.11	0.58	0.01	0.48	0.51	1.00	0.68	0.32	1.00	0.98	0.02
Final Sat.:	2269	197	1002	25	847	897	1159	1221	585	143	1863	32
Capacity Analysis Module:												
Vol/Sat:	0.19	0.41	0.41	0.04	0.04	0.04	0.17	0.77	0.77	0.46	0.10	0.10
Crit Moves:		****		****				****				
Green/Cycle:	0.28	0.28	0.28	0.10	0.10	0.10	0.53	0.53	0.53	0.53	0.53	0.53
Volume/Cap:	0.69	1.45	1.45	0.40	0.40	0.40	0.31	1.45	1.45	0.87	0.18	0.18
Delay/Veh:	33.6	248	248.5	43.7	43.7	43.7	13.5	233	233.1	83.0	12.3	12.3
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:	33.6	248	248.5	43.7	43.7	43.7	13.5	233	233.1	83.0	12.3	12.3
LOS by Move:	C	F	F	D	D	D	B	F	F	F	B	B
HCM2kAvgQ:	10	50	50	2	2	2	3	96	96	4	3	3

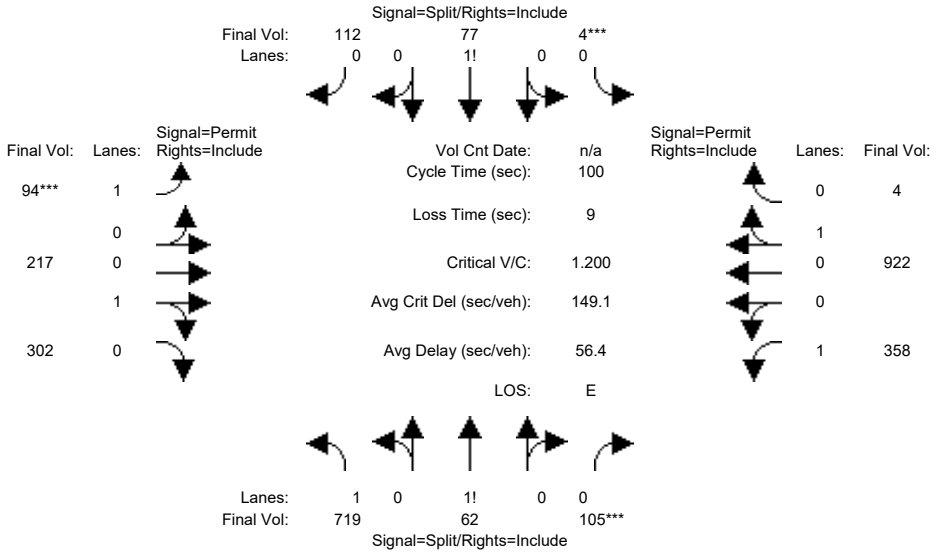
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City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd + Miti

Intersection #1109: Pulgas Av/Bay Rd (new signal)



Street Name:	Pulgas Avenue						Bay Road					
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	0	10	10	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:	719	62	105	4	77	112	94	217	302	358	922	4
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:	719	62	105	4	77	112	94	217	302	358	922	4
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	719	62	105	4	77	112	94	217	302	358	922	4
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:	719	62	105	4	77	112	94	217	302	358	922	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	719	62	105	4	77	112	94	217	302	358	922	4
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:	719	62	105	4	77	112	94	217	302	358	922	4
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.92	0.92	0.92	0.07	0.91	0.91	0.34	1.00	1.00
Lanes:	1.68	0.12	0.20	0.02	0.40	0.58	1.00	0.42	0.58	1.00	0.99	0.01
Final Sat.:	3017	211	358	36	698	1016	137	725	1009	650	1890	8
Capacity Analysis Module:												
Vol/Sat:	0.24	0.29	0.29	0.11	0.11	0.11	0.69	0.30	0.30	0.55	0.49	0.49
Crit Moves:			****	****			****					
Green/Cycle:	0.24	0.24	0.24	0.10	0.10	0.10	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	0.98	1.21	1.21	1.10	1.10	1.10	1.21	0.53	0.53	0.97	0.86	0.86
Delay/Veh:	63.6	146	145.9	143.3	143	143.3	191.6	13.9	13.9	59.7	25.3	25.3
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:	63.6	146	145.9	143.3	143	143.3	191.6	13.9	13.9	59.7	25.3	25.3
LOS by Move:	E	F	F	F	F	F	F	B	B	E	C	C
HCM2kAvgQ:	19	30	30	12	12	12	7	10	10	16	27	27

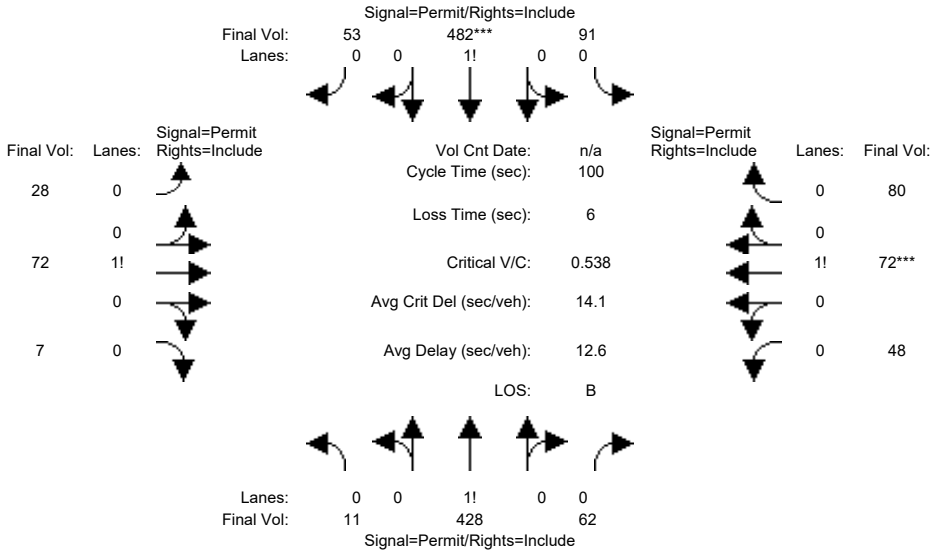
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd + Miti

Intersection #1150: Clarke Avenue and Weeks Street (new Signal)



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	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:	11	428	62	91	482	53	28	72	7	48	72	80
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:	11	428	62	91	482	53	28	72	7	48	72	80
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	428	62	91	482	53	28	72	7	48	72	80
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:	11	428	62	91	482	53	28	72	7	48	72	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	428	62	91	482	53	28	72	7	48	72	80
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:	11	428	62	91	482	53	28	72	7	48	72	80
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	0.97	0.86	0.86	0.86	0.89	0.89	0.89	0.86	0.86	0.86
Lanes:	0.02	0.86	0.12	0.15	0.77	0.08	0.26	0.67	0.07	0.24	0.36	0.40
Final Sat.:	40	1575	228	237	1256	138	443	1139	111	393	589	655
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.38	0.38	0.38	0.06	0.06	0.06	0.12	0.12	0.12
Crit Moves:					****						****	
Green/Cycle:	0.71	0.71	0.71	0.71	0.71	0.71	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.38	0.38	0.38	0.54	0.54	0.54	0.28	0.28	0.28	0.54	0.54	0.54
Delay/Veh:	5.8	5.8	5.8	7.2	7.2	7.2	32.3	32.3	32.3	35.6	35.6	35.6
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:	5.8	5.8	5.8	7.2	7.2	7.2	32.3	32.3	32.3	35.6	35.6	35.6
LOS by Move:	A	A	A	A	A	A	C	C	C	D	D	D
HCM2kAvgQ:	6	6	6	9	9	9	3	3	3	6	6	6

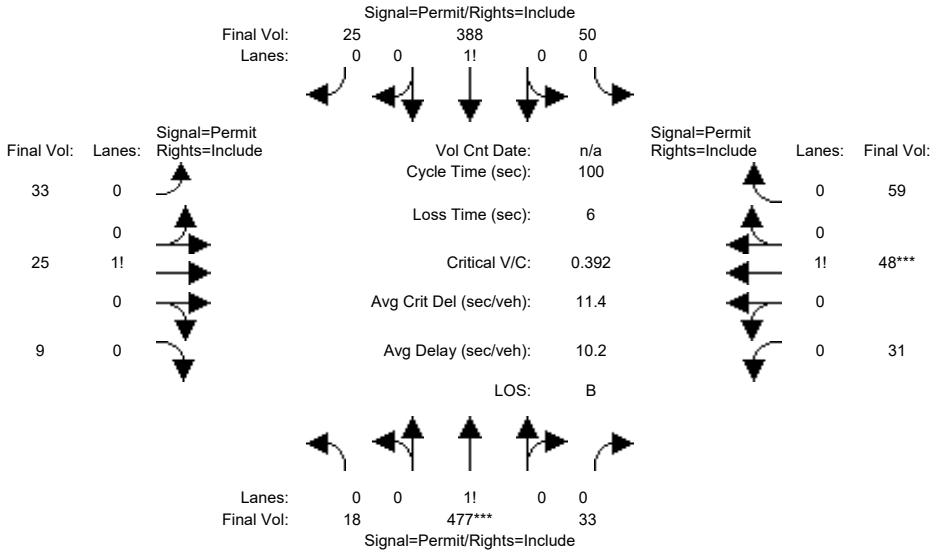
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd + Miti

Intersection #1150: Clarke Avenue and Weeks Street (new Signal)



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	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:	18	477	33	50	388	25	33	25	9	31	48	59
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:	18	477	33	50	388	25	33	25	9	31	48	59
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	477	33	50	388	25	33	25	9	31	48	59
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:	18	477	33	50	388	25	33	25	9	31	48	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	477	33	50	388	25	33	25	9	31	48	59
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:	18	477	33	50	388	25	33	25	9	31	48	59
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	0.97	0.90	0.90	0.90	0.84	0.84	0.84	0.88	0.88	0.88
Lanes:	0.03	0.91	0.06	0.11	0.84	0.05	0.50	0.37	0.13	0.22	0.35	0.43
Final Sat.:	63	1669	115	186	1440	93	784	594	214	374	578	711
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.27	0.27	0.27	0.04	0.04	0.04	0.08	0.08	0.08
Crit Moves:		****									****	
Green/Cycle:	0.73	0.73	0.73	0.73	0.73	0.73	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.39	0.39	0.39	0.37	0.37	0.37	0.20	0.20	0.20	0.39	0.39	0.39
Delay/Veh:	5.4	5.4	5.4	5.2	5.2	5.2	32.7	32.7	32.7	34.6	34.6	34.6
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:	5.4	5.4	5.4	5.2	5.2	5.2	32.7	32.7	32.7	34.6	34.6	34.6
LOS by Move:	A	A	A	A	A	A	C	C	C	C	C	C
HCM2kAvgQ:	6	6	6	5	5	5	2	2	2	4	4	4

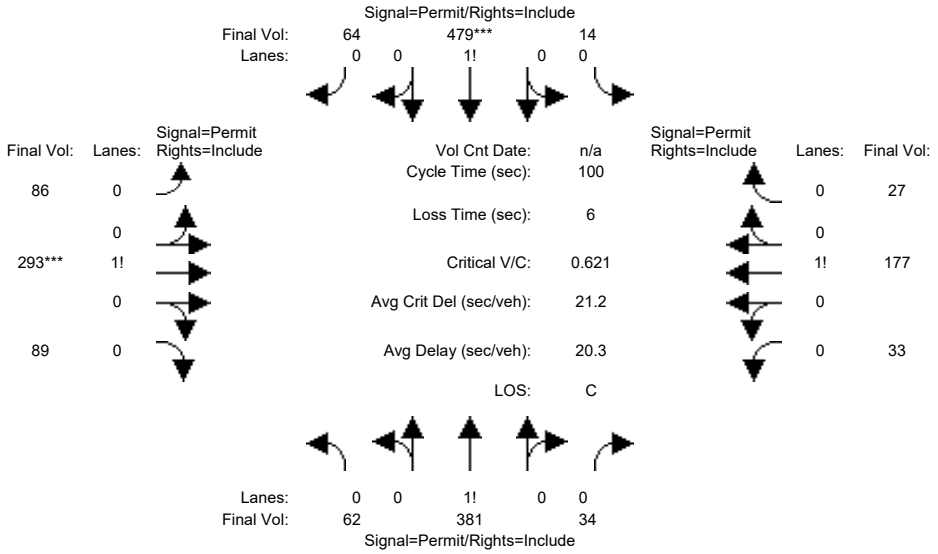
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd + Miti

Intersection #1151: Clarke Avenue and Runnymede Street (new signal)



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	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:	62	381	34	14	479	64	86	293	89	33	177	27
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:	62	381	34	14	479	64	86	293	89	33	177	27
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	381	34	14	479	64	86	293	89	33	177	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	381	34	14	479	64	86	293	89	33	177	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	381	34	14	479	64	86	293	89	33	177	27
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:	62	381	34	14	479	64	86	293	89	33	177	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	0.87	0.87	0.97	0.97	0.97	0.87	0.87	0.87	0.89	0.89	0.89
Lanes:	0.13	0.80	0.07	0.03	0.86	0.11	0.18	0.63	0.19	0.14	0.75	0.11
Final Sat.:	215	1319	118	46	1585	212	305	1039	316	236	1268	193
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.30	0.30	0.30	0.28	0.28	0.28	0.14	0.14	0.14
Crit Moves:					****			****				
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.45	0.45	0.45	0.45	0.45	0.45
Volume/Cap:	0.59	0.59	0.59	0.62	0.62	0.62	0.62	0.62	0.62	0.31	0.31	0.31
Delay/Veh:	19.8	19.8	19.8	20.3	20.3	20.3	22.4	22.4	22.4	17.6	17.6	17.6
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:	19.8	19.8	19.8	20.3	20.3	20.3	22.4	22.4	22.4	17.6	17.6	17.6
LOS by Move:	B	B	B	C	C	C	C	C	C	B	B	B
HCM2kAvgQ:	11	11	11	13	13	13	11	11	11	5	5	5

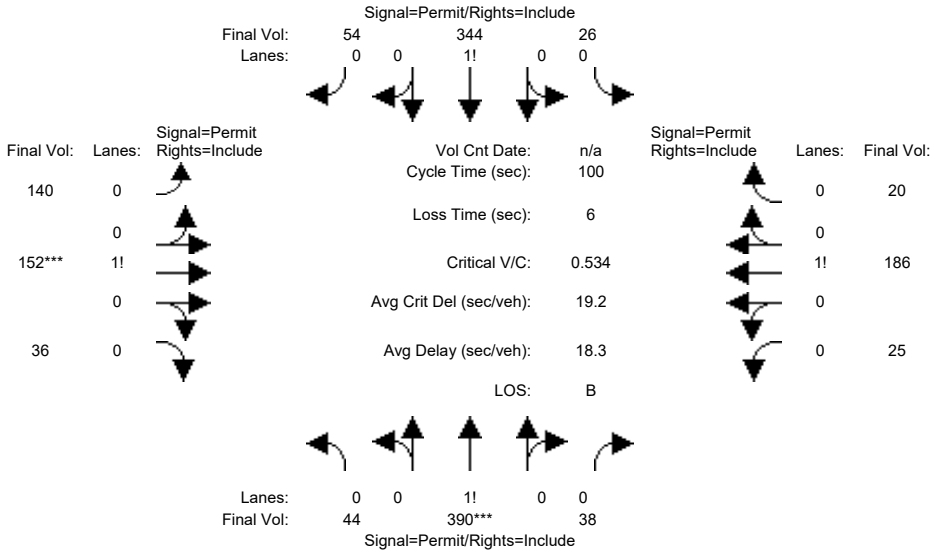
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd + Miti

Intersection #1151: Clarke Avenue and Runnymede Street (new signal)



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	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:	44	390	38	26	344	54	140	152	36	25	186	20
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:	44	390	38	26	344	54	140	152	36	25	186	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	390	38	26	344	54	140	152	36	25	186	20
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:	44	390	38	26	344	54	140	152	36	25	186	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	390	38	26	344	54	140	152	36	25	186	20
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:	44	390	38	26	344	54	140	152	36	25	186	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.94	0.94	0.94	0.74	0.74	0.74	0.93	0.93	0.93
Lanes:	0.09	0.83	0.08	0.06	0.81	0.13	0.43	0.46	0.11	0.11	0.80	0.09
Final Sat.:	163	1449	141	110	1455	228	601	652	154	192	1430	154
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.24	0.24	0.24	0.23	0.23	0.23	0.13	0.13	0.13
Crit Moves:		****						****				
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.53	0.53	0.53	0.47	0.47	0.47	0.53	0.53	0.53	0.30	0.30	0.30
Delay/Veh:	17.5	17.5	17.5	16.5	16.5	16.5	21.6	21.6	21.6	18.5	18.5	18.5
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:	17.5	17.5	17.5	16.5	16.5	16.5	21.6	21.6	21.6	18.5	18.5	18.5
LOS by Move:	B	B	B	B	B	B	C	C	C	B	B	B
HCM2kAvgQ:	10	10	10	9	9	9	8	8	8	5	5	5

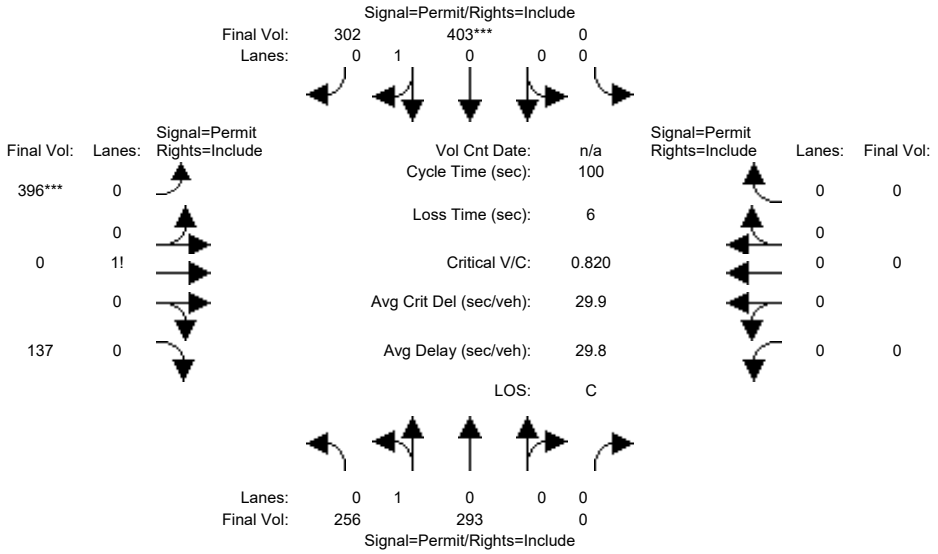
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd + Miti

Intersection #1152: Clarke Avenue and Donohoe Street (new signal)



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	0	0	10	10	10	10	10	0	0	0
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:	256	293	0	0	403	302	396	0	137	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:	256	293	0	0	403	302	396	0	137	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	293	0	0	403	302	396	0	137	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:	256	293	0	0	403	302	396	0	137	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	293	0	0	403	302	396	0	137	0	0	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:	256	293	0	0	403	302	396	0	137	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.74	0.74	1.00	1.00	0.94	0.94	0.74	1.00	0.74	1.00	1.00	1.00
Lanes:	0.47	0.53	0.00	0.00	0.57	0.43	0.74	0.00	0.26	0.00	0.00	0.00
Final Sat.:	656	750	0	0	1023	767	1050	0	363	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.39	0.39	0.00	0.00	0.39	0.39	0.38	0.00	0.38	0.00	0.00	0.00
Crit Moves:					****		****					
Green/Cycle:	0.48	0.48	0.00	0.00	0.48	0.48	0.46	0.00	0.46	0.00	0.00	0.00
Volume/Cap:	0.81	0.81	0.00	0.00	0.82	0.82	0.82	0.00	0.82	0.00	0.00	0.00
Delay/Veh:	29.6	29.6	0.0	0.0	28.6	28.6	31.6	0.0	31.6	0.0	0.0	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:	29.6	29.6	0.0	0.0	28.6	28.6	31.6	0.0	31.6	0.0	0.0	0.0
LOS by Move:	C	C	A	A	C	C	C	A	C	A	A	A
HCM2kAvgQ:	17	17	0	0	21	21	16	0	16	0	0	0

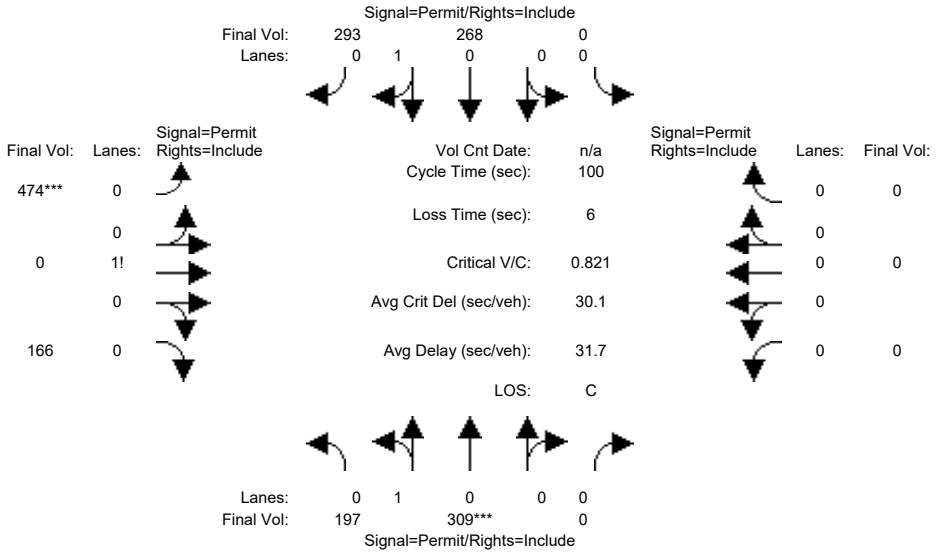
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd + Miti

Intersection #1152: Clarke Avenue and Donohoe Street (new signal)



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	0	0	0	0	0	0	0	0	0
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:	197	309	0	0	268	293	474	0	166	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:	197	309	0	0	268	293	474	0	166	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	309	0	0	268	293	474	0	166	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:	197	309	0	0	268	293	474	0	166	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	309	0	0	268	293	474	0	166	0	0	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:	197	309	0	0	268	293	474	0	166	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.83	1.00	1.00	0.93	0.93	0.74	1.00	0.74	1.00	1.00	1.00
Lanes:	0.39	0.61	0.00	0.00	0.48	0.52	0.74	0.00	0.26	0.00	0.00	0.00
Final Sat.:	617	968	0	0	844	923	1047	0	367	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.00	0.00	0.32	0.32	0.45	0.00	0.45	0.00	0.00	0.00
Crit Moves:		****					****					
Green/Cycle:	0.39	0.39	0.00	0.00	0.39	0.39	0.55	0.00	0.55	0.00	0.00	0.00
Volume/Cap:	0.82	0.82	0.00	0.00	0.82	0.82	0.82	0.00	0.82	0.00	0.00	0.00
Delay/Veh:	36.1	36.1	0.0	0.0	34.9	34.9	25.4	0.0	25.4	0.0	0.0	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:	36.1	36.1	0.0	0.0	34.9	34.9	25.4	0.0	25.4	0.0	0.0	0.0
LOS by Move:	D	D	A	A	C	C	C	A	C	A	A	A
HCM2kAvgQ:	16	16	0	0	18	18	18	0	18	0	0	0

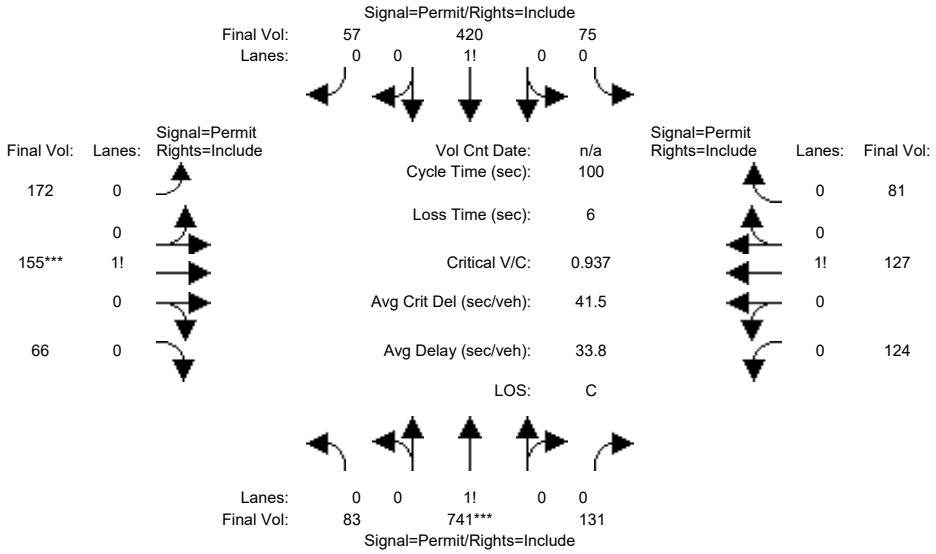
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
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Intersection #1154: Pulgas Avenue and Runnymede Street (new Signal)



Street Name:	Pulgas Avenue						Runnymede Street					
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	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:	83	741	131	75	420	57	172	155	66	124	127	81
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:	83	741	131	75	420	57	172	155	66	124	127	81
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	741	131	75	420	57	172	155	66	124	127	81
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:	83	741	131	75	420	57	172	155	66	124	127	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	741	131	75	420	57	172	155	66	124	127	81
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:	83	741	131	75	420	57	172	155	66	124	127	81
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.90	0.90	0.78	0.78	0.78	0.65	0.65	0.65	0.69	0.69	0.69
Lanes:	0.09	0.77	0.14	0.14	0.76	0.10	0.44	0.39	0.17	0.37	0.39	0.24
Final Sat.:	148	1322	234	202	1133	154	537	484	206	492	504	321
Capacity Analysis Module:												
Vol/Sat:	0.56	0.56	0.56	0.37	0.37	0.37	0.32	0.32	0.32	0.25	0.25	0.25
Crit Moves:		****						****				
Green/Cycle:	0.60	0.60	0.60	0.60	0.60	0.60	0.34	0.34	0.34	0.34	0.34	0.34
Volume/Cap:	0.94	0.94	0.94	0.62	0.62	0.62	0.94	0.94	0.94	0.74	0.74	0.74
Delay/Veh:	33.7	33.7	33.7	14.2	14.2	14.2	60.5	60.5	60.5	35.3	35.3	35.3
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:	33.7	33.7	33.7	14.2	14.2	14.2	60.5	60.5	60.5	35.3	35.3	35.3
LOS by Move:	C	C	C	B	B	B	E	E	E	D	D	D
HCM2kAvgQ:	32	32	32	11	11	11	16	16	16	11	11	11

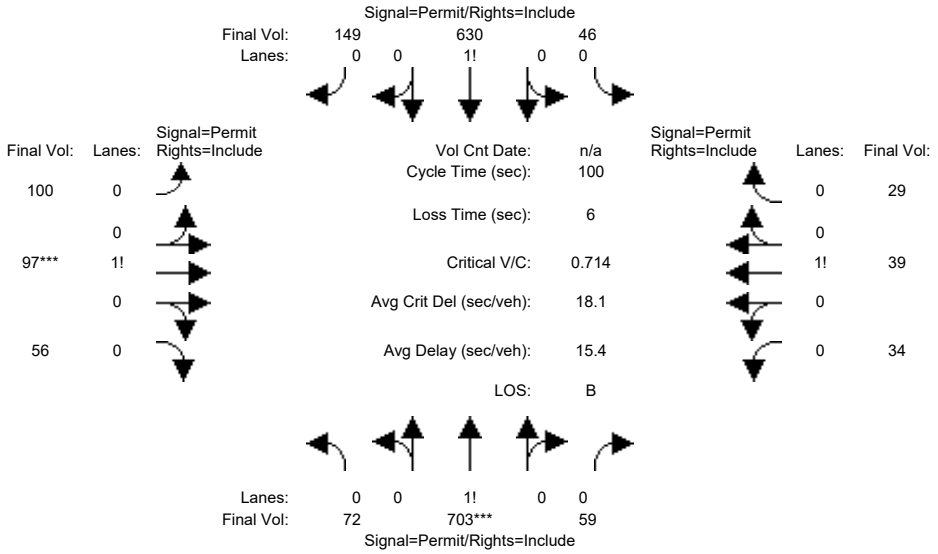
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Intersection #1154: Pulgas Avenue and Runnymede Street (new Signal)



Street Name:	Pulgas Avenue						Runnymede Street					
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	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	703	59	46	630	149	100	97	56	34	39	29
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	703	59	46	630	149	100	97	56	34	39	29
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	703	59	46	630	149	100	97	56	34	39	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	72	703	59	46	630	149	100	97	56	34	39	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	703	59	46	630	149	100	97	56	34	39	29
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	703	59	46	630	149	100	97	56	34	39	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	0.87	0.87	0.90	0.90	0.90	0.80	0.80	0.80	0.80	0.80	0.80
Lanes:	0.09	0.84	0.07	0.06	0.76	0.18	0.40	0.38	0.22	0.33	0.39	0.28
Final Sat.:	142	1391	117	96	1310	310	602	584	337	508	583	433
Capacity Analysis Module:												
Vol/Sat:	0.51	0.51	0.51	0.48	0.48	0.48	0.17	0.17	0.17	0.07	0.07	0.07
Crit Moves:		****						****				
Green/Cycle:	0.71	0.71	0.71	0.71	0.71	0.71	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.71	0.71	0.71	0.68	0.68	0.68	0.71	0.71	0.71	0.29	0.29	0.29
Delay/Veh:	10.8	10.8	10.8	9.8	9.8	9.8	42.1	42.1	42.1	32.0	32.0	32.0
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:	10.8	10.8	10.8	9.8	9.8	9.8	42.1	42.1	42.1	32.0	32.0	32.0
LOS by Move:	B	B	B	A	A	A	D	D	D	C	C	C
HCM2kAvgQ:	16	16	16	15	15	15	9	9	9	3	3	3

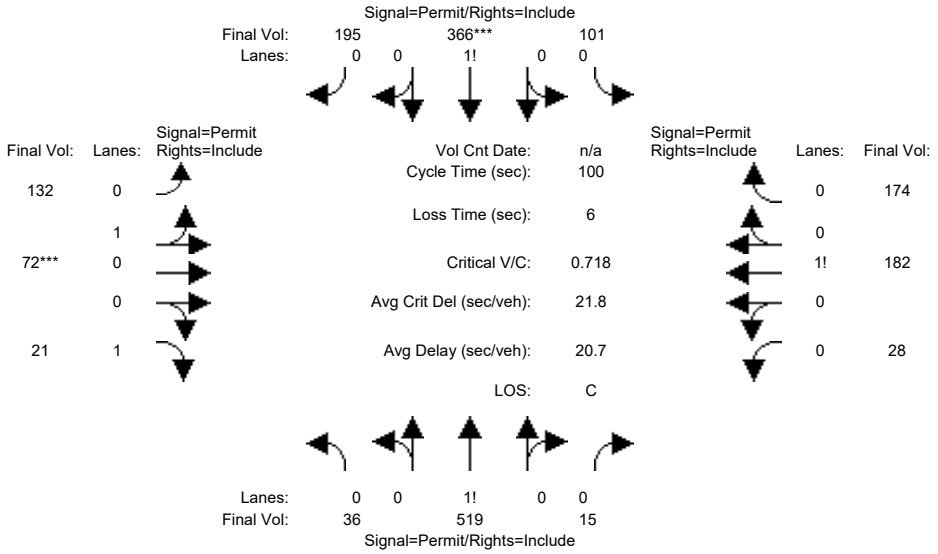
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd + Miti

Intersection #1155: Pulgas Avenue and O'Connor Street (new Signal)



Street Name:	Pulgas Avenue						O'Connor Street					
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	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:	36	519	15	101	366	195	132	72	21	28	182	174
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	519	15	101	366	195	132	72	21	28	182	174
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	519	15	101	366	195	132	72	21	28	182	174
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	519	15	101	366	195	132	72	21	28	182	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	519	15	101	366	195	132	72	21	28	182	174
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	519	15	101	366	195	132	72	21	28	182	174
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.81	0.81	0.81	0.43	0.43	0.85	0.91	0.91	0.91
Lanes:	0.06	0.91	0.03	0.15	0.56	0.29	0.65	0.35	1.00	0.07	0.48	0.45
Final Sat.:	112	1618	47	236	855	456	534	291	1615	126	821	785
Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.32	0.43	0.43	0.43	0.25	0.25	0.01	0.22	0.22	0.22
Crit Moves:					****			****				
Green/Cycle:	0.60	0.60	0.60	0.60	0.60	0.60	0.34	0.34	0.34	0.34	0.34	0.34
Volume/Cap:	0.54	0.54	0.54	0.72	0.72	0.72	0.72	0.72	0.04	0.64	0.64	0.64
Delay/Veh:	12.6	12.6	12.6	17.1	17.1	17.1	37.1	37.1	21.8	30.0	30.0	30.0
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:	12.6	12.6	12.6	17.1	17.1	17.1	37.1	37.1	21.8	30.0	30.0	30.0
LOS by Move:	B	B	B	B	B	B	D	D	C	C	C	C
HCM2kAvgQ:	11	11	11	15	15	15	7	7	0	11	11	11

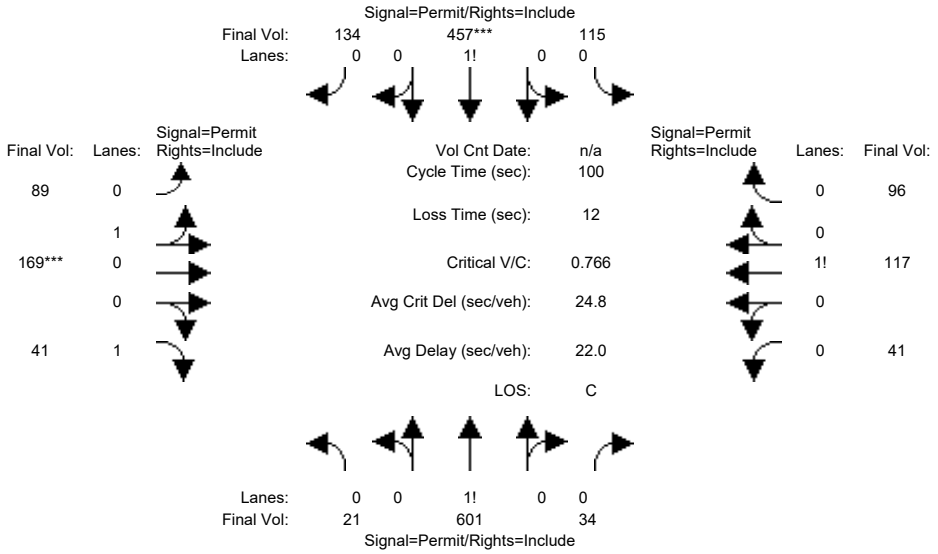
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd + Miti

Intersection #1155: Pulgas Avenue and O'Connor Street (new Signal)



Street Name:	Pulgas Avenue						O'Connor Street					
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	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:	21	601	34	115	457	134	89	169	41	41	117	96
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:	21	601	34	115	457	134	89	169	41	41	117	96
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	601	34	115	457	134	89	169	41	41	117	96
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:	21	601	34	115	457	134	89	169	41	41	117	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	601	34	115	457	134	89	169	41	41	117	96
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:	21	601	34	115	457	134	89	169	41	41	117	96
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.96	0.78	0.78	0.78	0.68	0.68	0.85	0.82	0.82	0.82
Lanes:	0.03	0.92	0.05	0.16	0.65	0.19	0.34	0.66	1.00	0.16	0.46	0.38
Final Sat.:	59	1677	95	242	962	282	446	848	1615	250	714	586
Capacity Analysis Module:												
Vol/Sat:	0.36	0.36	0.36	0.48	0.48	0.48	0.20	0.20	0.03	0.16	0.16	0.16
Crit Moves:					****			****				
Green/Cycle:	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.58	0.58	0.58	0.77	0.77	0.77	0.77	0.77	0.10	0.63	0.63	0.63
Delay/Veh:	12.0	12.0	12.0	17.7	17.7	17.7	44.3	44.3	28.2	35.9	35.9	35.9
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:	12.0	12.0	12.0	17.7	17.7	17.7	44.3	44.3	28.2	35.9	35.9	35.9
LOS by Move:	B	B	B	B	B	B	D	D	C	D	D	D
HCM2kAvgQ:	12	12	12	17	17	17	9	9	1	8	8	8

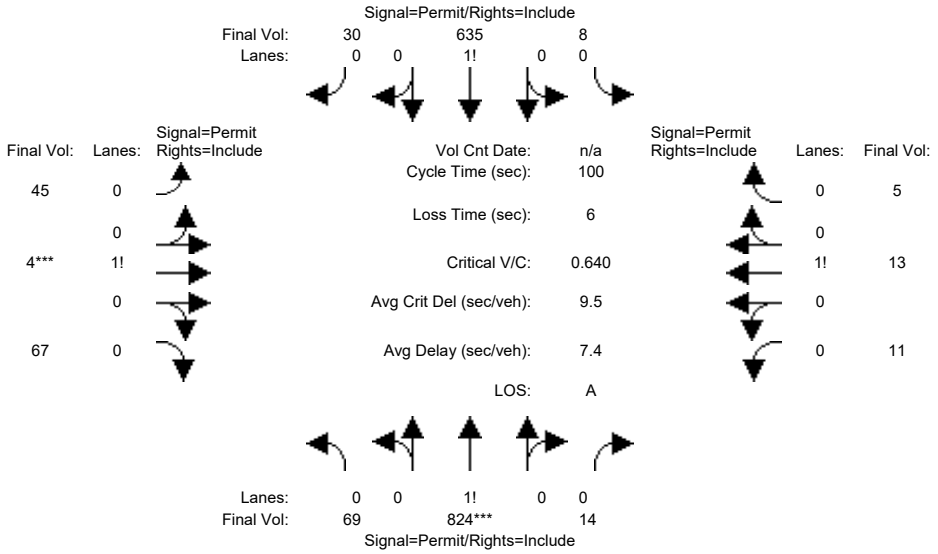
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd + Miti

Intersection #1170: Pulgas Avenue & Garden St (new signal)



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	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:	69	824	14	8	635	30	45	4	67	11	13	5
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:	69	824	14	8	635	30	45	4	67	11	13	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	824	14	8	635	30	45	4	67	11	13	5
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:	69	824	14	8	635	30	45	4	67	11	13	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	824	14	8	635	30	45	4	67	11	13	5
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:	69	824	14	8	635	30	45	4	67	11	13	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.91	0.91	0.99	0.99	0.99	0.80	0.80	0.80	0.88	0.88	0.88
Lanes:	0.08	0.91	0.01	0.01	0.95	0.04	0.39	0.03	0.58	0.38	0.45	0.17
Final Sat.:	131	1569	27	22	1766	83	589	52	876	632	746	287
Capacity Analysis Module:												
Vol/Sat:	0.53	0.53	0.53	0.36	0.36	0.36	0.08	0.08	0.08	0.02	0.02	0.02
Crit Moves:		****						****				
Green/Cycle:	0.82	0.82	0.82	0.82	0.82	0.82	0.12	0.12	0.12	0.12	0.12	0.12
Volume/Cap:	0.64	0.64	0.64	0.44	0.44	0.44	0.64	0.64	0.64	0.15	0.15	0.15
Delay/Veh:	4.4	4.4	4.4	2.7	2.7	2.7	49.5	49.5	49.5	39.8	39.8	39.8
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:	4.4	4.4	4.4	2.7	2.7	2.7	49.5	49.5	49.5	39.8	39.8	39.8
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2kAvgQ:	11	11	11	6	6	6	5	5	5	1	1	1

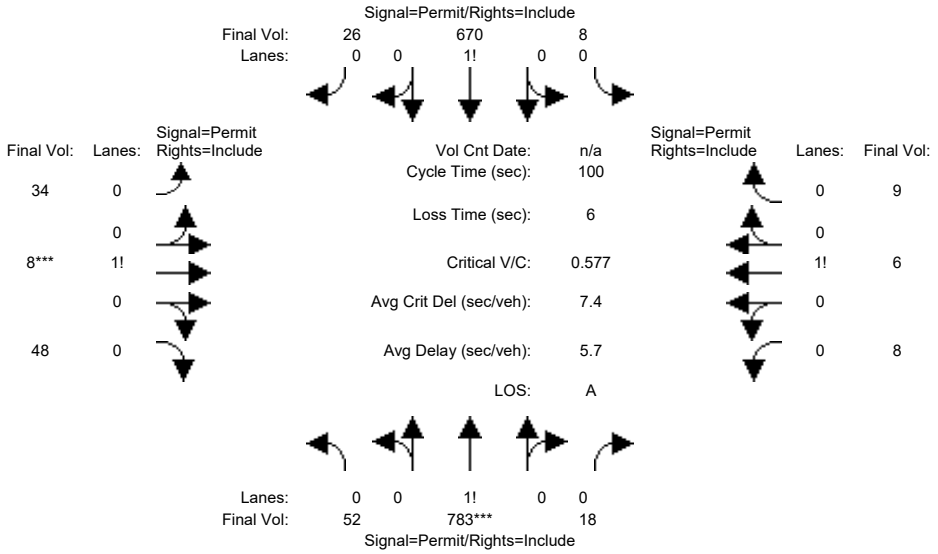
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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd + Miti

Intersection #1170: Pulgas Avenue & Garden St (new signal)



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	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:	52	783	18	8	670	26	34	8	48	8	6	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:	52	783	18	8	670	26	34	8	48	8	6	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	783	18	8	670	26	34	8	48	8	6	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:	52	783	18	8	670	26	34	8	48	8	6	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	783	18	8	670	26	34	8	48	8	6	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:	52	783	18	8	670	26	34	8	48	8	6	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.99	0.99	0.99	0.81	0.81	0.81	0.88	0.88	0.88
Lanes:	0.06	0.92	0.02	0.01	0.95	0.04	0.38	0.09	0.53	0.35	0.26	0.39
Final Sat.:	107	1617	37	21	1785	69	582	137	821	578	434	651
Capacity Analysis Module:												
Vol/Sat:	0.48	0.48	0.48	0.38	0.38	0.38	0.06	0.06	0.06	0.01	0.01	0.01
Crit Moves:		****						****				
Green/Cycle:	0.84	0.84	0.84	0.84	0.84	0.84	0.10	0.10	0.10	0.10	0.10	0.10
Volume/Cap:	0.58	0.58	0.58	0.45	0.45	0.45	0.58	0.58	0.58	0.14	0.14	0.14
Delay/Veh:	3.1	3.1	3.1	2.3	2.3	2.3	48.2	48.2	48.2	41.3	41.3	41.3
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:	3.1	3.1	3.1	2.3	2.3	2.3	48.2	48.2	48.2	41.3	41.3	41.3
LOS by Move:	A	A	A	A	A	A	D	D	D	D	D	D
HCM2kAvgQ:	9	9	9	6	6	6	4	4	4	1	1	1

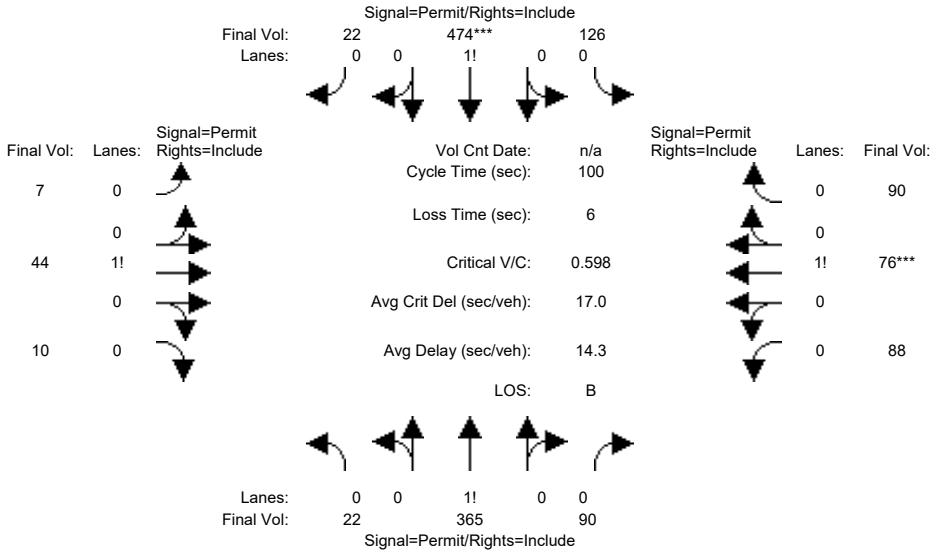
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj AM with Loop Rd + Miti

Intersection #1171: Clarke Ave & Schembri Lane/Garden St (new signal)



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	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:	22	365	90	126	474	22	7	44	10	88	76	90
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:	22	365	90	126	474	22	7	44	10	88	76	90
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	365	90	126	474	22	7	44	10	88	76	90
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:	22	365	90	126	474	22	7	44	10	88	76	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	365	90	126	474	22	7	44	10	88	76	90
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:	22	365	90	126	474	22	7	44	10	88	76	90
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.94	0.94	0.82	0.82	0.82	0.94	0.94	0.94	0.83	0.83	0.83
Lanes:	0.05	0.76	0.19	0.20	0.76	0.04	0.11	0.73	0.16	0.35	0.30	0.35
Final Sat.:	82	1367	337	314	1183	55	206	1295	294	545	470	557
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.27	0.40	0.40	0.40	0.03	0.03	0.03	0.16	0.16	0.16
Crit Moves:					****						****	
Green/Cycle:	0.67	0.67	0.67	0.67	0.67	0.67	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.40	0.40	0.40	0.60	0.60	0.60	0.13	0.13	0.13	0.60	0.60	0.60
Delay/Veh:	7.7	7.7	7.7	10.1	10.1	10.1	27.7	27.7	27.7	34.1	34.1	34.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.7	7.7	7.7	10.1	10.1	10.1	27.7	27.7	27.7	34.1	34.1	34.1
LOS by Move:	A	A	A	B	B	B	C	C	C	C	C	C
HCM2kAvgQ:	7	7	7	11	11	11	1	1	1	8	8	8

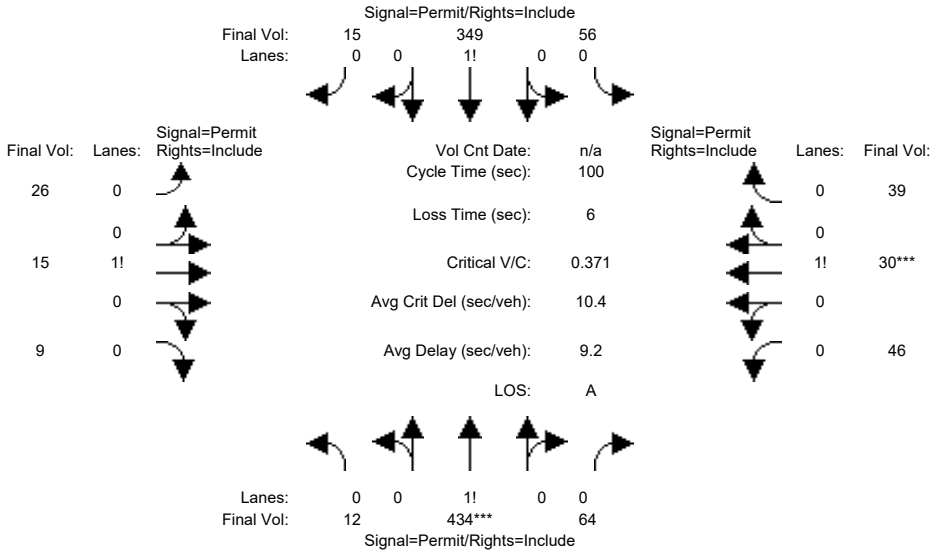
Note: Queue reported is the number of cars per lane.

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KIPP Charter High School TIA
Hexagon Transportation Consultants
City of East Palo Alto

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cum+proj PM with Loop Rd + Miti

Intersection #1171: Clarke Ave & Schembri Lane/Garden St (new signal)



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	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:	12	434	64	56	349	15	26	15	9	46	30	39
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:	12	434	64	56	349	15	26	15	9	46	30	39
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	434	64	56	349	15	26	15	9	46	30	39
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:	12	434	64	56	349	15	26	15	9	46	30	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	434	64	56	349	15	26	15	9	46	30	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	434	64	56	349	15	26	15	9	46	30	39
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.97	0.97	0.97	0.89	0.89	0.89	0.83	0.83	0.83	0.83	0.83	0.83
Lanes:	0.02	0.85	0.13	0.13	0.83	0.04	0.52	0.30	0.18	0.40	0.26	0.34
Final Sat.:	43	1572	232	225	1401	60	817	471	283	632	412	536
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.28	0.25	0.25	0.25	0.03	0.03	0.03	0.07	0.07	0.07
Crit Moves:		****									****	
Green/Cycle:	0.74	0.74	0.74	0.74	0.74	0.74	0.20	0.20	0.20	0.20	0.20	0.20
Volume/Cap:	0.37	0.37	0.37	0.33	0.33	0.33	0.16	0.16	0.16	0.37	0.37	0.37
Delay/Veh:	4.7	4.7	4.7	4.5	4.5	4.5	33.6	33.6	33.6	35.6	35.6	35.6
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:	4.7	4.7	4.7	4.5	4.5	4.5	33.6	33.6	33.6	35.6	35.6	35.6
LOS by Move:	A	A	A	A	A	A	C	C	C	D	D	D
HCM2kAvgQ:	6	6	6	4	4	4	1	1	1	3	3	3

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

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1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.7	0.5	0.0	0.0	0.3	0.3	0.4
Total Del/Veh (s)	51.2	74.9	11.4	6.4	37.5	32.8	51.3
Vehicles Entered	2	481	117	42	356	6	1004
Vehicles Exited	2	464	117	41	351	6	981
Hourly Exit Rate	2	464	117	41	351	6	981
Input Volume	2	485	122	41	360	5	1015
% of Volume	100	96	96	101	98	114	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	All
Denied Del/Veh (s)	0.6	1.0	1.7	0.4	0.0	0.1	0.1	0.9
Total Del/Veh (s)	7.5	8.0	64.7	6.0	5.6	635.2	385.8	23.8
Vehicles Entered	607	240	368	166	2	1	2	1386
Vehicles Exited	604	240	369	166	2	1	2	1384
Hourly Exit Rate	604	240	369	166	2	1	2	1384
Input Volume	628	249	403	170	3	1	1	1456
% of Volume	96	96	92	98	67	80	160	95
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	1.9	7.2	0.0	0.0	0.0	0.0	0.0	0.0	161.7	124.6	111.1
Total Del/Veh (s)	77.8	86.0	46.9	76.9	70.0	18.4	68.9	14.3	4.3	332.9	309.7	294.1
Vehicles Entered	12	72	506	454	397	437	83	374	403	14	721	53
Vehicles Exited	12	71	502	452	394	437	82	374	402	15	721	52
Hourly Exit Rate	12	71	502	452	394	437	82	374	402	15	721	52
Input Volume	14	75	526	479	397	448	86	366	405	24	1115	83
% of Volume	87	95	95	94	99	98	95	102	99	63	65	63
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	0	0	1	37	3

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	30.0
Total Del/Veh (s)	106.5
Vehicles Entered	3526
Vehicles Exited	3514
Hourly Exit Rate	3514
Input Volume	4016
% of Volume	87
Denied Entry Before	0
Denied Entry After	42

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.3	0.0	0.3	0.3	0.1	0.1	0.1	0.2
Total Del/Veh (s)	9.3	34.9	7.3	131.4	49.2	9.0	108.2	68.9	47.9
Vehicles Entered	495	834	22	458	76	216	2	18	2121
Vehicles Exited	494	827	22	447	75	215	2	18	2100
Hourly Exit Rate	494	827	22	447	75	215	2	18	2100
Input Volume	510	848	22	460	75	214	2	19	2150
% of Volume	97	98	101	97	100	100	100	95	98
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.6	0.0	0.1	0.2	0.3	0.3
Total Del/Veh (s)	49.9	51.1	9.8	39.2	18.9	88.8	45.6	43.8	31.8
Vehicles Entered	16	148	546	544	28	10	72	300	1664
Vehicles Exited	17	148	546	536	28	10	73	292	1650
Hourly Exit Rate	17	148	546	536	28	10	73	292	1650
Input Volume	16	155	553	556	29	11	78	287	1684
% of Volume	106	96	99	96	97	91	94	102	98
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		0.1	0.0	0.0	0.0	0.2	0.1	0.1
Total Del/Veh (s)		51.6	5.3	54.1	31.0	45.0	24.5	32.5
Vehicles Entered	0	218	382	362	7	7	226	1202
Vehicles Exited	0	217	380	352	7	7	225	1188
Hourly Exit Rate	0	217	380	352	7	7	225	1188
Input Volume	1	233	378	358	7	8	232	1217
% of Volume	0	93	100	98	97	85	97	98
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.4	0.0	0.1	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	176.9	20.3	40.1	27.6	9.8	135.8	135.2	89.8
Vehicles Entered	217	7	268	923	428	729	1117	3689
Vehicles Exited	216	7	268	926	428	721	1105	3671
Hourly Exit Rate	216	7	268	926	428	721	1105	3671
Input Volume	222	6	270	924	425	900	1363	4110
% of Volume	97	117	99	100	101	80	81	89
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.6	0.4	0.7	0.3	0.3	0.3	0.0	0.0	0.0	0.3	1.1	0.4
Total Del/Veh (s)	55.9	55.0	44.9	81.1	87.8	46.3	109.7	42.9	40.1	123.1	96.8	10.6
Vehicles Entered	388	120	61	11	100	328	48	610	8	124	841	367
Vehicles Exited	389	120	61	10	100	328	47	611	8	122	840	364
Hourly Exit Rate	389	120	61	10	100	328	47	611	8	122	840	364
Input Volume	380	122	59	10	98	333	50	612	7	144	1011	442
% of Volume	102	98	103	98	102	98	94	100	110	85	83	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	62.9
Vehicles Entered	3006
Vehicles Exited	3000
Hourly Exit Rate	3000
Input Volume	3268
% of Volume	92
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	16.7	22.4	5.1	2.3	45.3	20.9	15.3
Vehicles Entered	20	472	322	216	88	8	1126
Vehicles Exited	20	474	322	216	88	8	1128
Hourly Exit Rate	20	474	322	216	88	8	1128
Input Volume	20	463	372	245	91	6	1198
% of Volume	99	102	86	88	96	128	94
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.3	0.3	0.1
Total Del/Veh (s)	24.9	15.0	8.5	5.0	13.7	14.0	11.6
Vehicles Entered	3	253	168	140	244	6	814
Vehicles Exited	3	253	169	140	245	6	816
Hourly Exit Rate	3	253	169	140	245	6	816
Input Volume	3	250	189	163	240	6	850
% of Volume	100	101	89	86	102	104	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	2.0	0.9	2.5	2.3	6.8	4.8	3.7
Vehicles Entered	4	93	145	39	156	13	450
Vehicles Exited	4	94	145	39	156	13	451
Hourly Exit Rate	4	94	145	39	156	13	451
Input Volume	4	95	162	43	151	14	468
% of Volume	107	99	90	90	103	95	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	55.1	44.1	17.9		14.7	7.8	5.9	1.3	1.3	7.9
Vehicles Entered	3	8	64	0	662	2	41	861	3	1644
Vehicles Exited	4	8	64	0	663	2	41	861	3	1646
Hourly Exit Rate	4	8	64	0	663	2	41	861	3	1646
Input Volume	4	8	65	1	665	3	47	1020	4	1817
% of Volume	100	103	98	0	100	67	87	84	75	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	25.6	3.3	8.0	13.2
Vehicles Entered	488	4	1148	1640
Vehicles Exited	487	4	1151	1642
Hourly Exit Rate	487	4	1151	1642
Input Volume	492	4	1325	1822
% of Volume	99	89	87	90
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.6	0.3
Total Del/Veh (s)	48.6	5.7	6.8	7.3	9.4
Vehicles Entered	198	857	326	1724	3105
Vehicles Exited	195	858	326	1721	3100
Hourly Exit Rate	195	858	326	1721	3100
Input Volume	198	855	327	2142	3523
% of Volume	98	100	100	80	88
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	2	2

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	16.6	16.6
Vehicles Entered	626	626
Vehicles Exited	623	623
Hourly Exit Rate	623	623
Input Volume	670	670
% of Volume	93	93
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.6	0.4	0.5
Total Del/Veh (s)	4.2	25.6	16.8
Vehicles Entered	667	906	1573
Vehicles Exited	665	906	1571
Hourly Exit Rate	665	906	1571
Input Volume	669	1064	1732
% of Volume	99	85	91
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	10.9	10.9
Vehicles Entered	606	606
Vehicles Exited	606	606
Hourly Exit Rate	606	606
Input Volume	653	653
% of Volume	93	93
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	82.2	82.2
Total Del/Veh (s)	112.2	112.2
Vehicles Entered	1204	1204
Vehicles Exited	1200	1200
Hourly Exit Rate	1200	1200
Input Volume	1401	1401
% of Volume	86	86
Denied Entry Before	0	0
Denied Entry After	27	27

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	485.7	411.8	418.4	1986.3	2026.2	1868.7	0.1	0.0	0.0	64.8	49.5	50.8
Total Del/Veh (s)	609.5	664.0	681.5	1925.5	2092.2	2019.9	60.0	15.8	15.8	536.4	506.2	437.5
Vehicles Entered	6	52	35	10	7	2	20	770	34	14	881	9
Vehicles Exited	6	46	31	12	7	1	20	771	35	11	732	7
Hourly Exit Rate	6	46	31	12	7	1	20	771	35	11	732	7
Input Volume	11	67	48	166	106	14	20	775	34	15	953	9
% of Volume	55	68	64	7	7	7	100	99	102	73	77	78
Denied Entry Before	0	0	0	30	21	3	0	0	0	0	0	0
Denied Entry After	3	20	14	185	114	16	0	0	0	1	77	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	339.0
Total Del/Veh (s)	338.1
Vehicles Entered	1840
Vehicles Exited	1679
Hourly Exit Rate	1679
Input Volume	2219
% of Volume	76
Denied Entry Before	54
Denied Entry After	430

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.3	0.2	0.2
Total Del/Veh (s)	3.8	3.9	3.8
Vehicles Entered	199	738	937
Vehicles Exited	199	735	934
Hourly Exit Rate	199	735	934
Input Volume	198	737	935
% of Volume	100	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	1.4	0.8	1.1
Vehicles Entered	357	390	747
Vehicles Exited	356	390	746
Hourly Exit Rate	356	390	746
Input Volume	353	390	744
% of Volume	101	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	139.2
Total Del/Veh (s)	298.5
Vehicles Entered	6575
Vehicles Exited	6292
Hourly Exit Rate	6292
Input Volume	47269
% of Volume	13
Denied Entry Before	54
Denied Entry After	501

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	42	1.0	57.1	0.5	30
O Connor St	44	1.4	15.5	0.1	27
Total		2.4	72.6	0.6	29

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	28.4	40.5	0.1	7
US 101 NB Loop On-Ra	15	6.6	32.3	0.2	24
Donohoe Street	3	14.3	19.4	0.1	10
Bell St	36	24.5	48.5	0.2	15
Total		73.8	140.7	0.5	14

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bell St	36	506.2	604.8	0.5	3
Donohoe Street	3	308.8	453.4	0.2	2
US 101 NB Loop Off-R	15	6.7	12.7	0.1	17
US 101 SB Off-Ramp	7	133.4	153.6	0.2	5
Woodland Avenue	8	97.7	110.3	0.1	3
Total		1052.8	1334.8	1.0	3

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	245	775	143	427
Average Queue (ft)	118	285	60	158
95th Queue (ft)	283	909	109	370
Link Distance (ft)		2273	202	694
Upstream Blk Time (%)		1	0	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	4	22		
Queuing Penalty (veh)	10	54		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	T	TR	L	TR	LTR
Maximum Queue (ft)	165	218	398	373	36
Average Queue (ft)	28	108	256	119	8
95th Queue (ft)	129	241	423	367	33
Link Distance (ft)	202	202	328	328	453
Upstream Blk Time (%)	1	9	12	3	
Queuing Penalty (veh)	3	39	35	10	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	83	184	360	249	322	304	285	82	118	184	211	87
Average Queue (ft)	14	67	275	220	283	222	128	14	34	41	67	57
95th Queue (ft)	52	161	415	309	331	333	278	51	91	116	161	102
Link Distance (ft)		328	328		249	249	249	87	87	87	87	
Upstream Blk Time (%)		0	18	9	40	14	2	1	3	3	5	2
Queuing Penalty (veh)		1	55	0	173	62	7	2	7	7	10	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		2		30	48						5	2
Queuing Penalty (veh)		0		129	114						20	3

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	260	1025	1031
Average Queue (ft)	62	999	999
95th Queue (ft)	229	1016	1016
Link Distance (ft)		988	988
Upstream Blk Time (%)		57	55
Queuing Penalty (veh)		333	320
Storage Bay Dist (ft)	235		
Storage Blk Time (%)		80	
Queuing Penalty (veh)		19	

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	222	160	315	296	249	647	663	196	154	68	113	21
Average Queue (ft)	76	50	252	144	51	271	329	50	60	4	9	3
95th Queue (ft)	179	129	361	315	149	624	654	120	112	44	72	17
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	0	0	31	6	0	3	4			0	1	
Queuing Penalty (veh)	0	0	87	17	1	8	10			2	4	
Storage Bay Dist (ft)									500			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	74
Average Queue (ft)	21
95th Queue (ft)	58
Link Distance (ft)	525
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	LT	R
Maximum Queue (ft)	149	274	132	65	242	240	52	35	139	431
Average Queue (ft)	110	106	52	11	151	127	8	3	49	170
95th Queue (ft)	166	239	111	43	267	256	32	19	107	370
Link Distance (ft)		258	258	258	185	185	497	497	939	939
Upstream Blk Time (%)		1			23	14				
Queuing Penalty (veh)		4			66	40				
Storage Bay Dist (ft)	100									
Storage Blk Time (%)	20	4								
Queuing Penalty (veh)	35	6								

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	208	106	134	54	292	287	36	233
Average Queue (ft)	155	18	34	6	119	110	7	94
95th Queue (ft)	227	73	105	35	359	346	26	215
Link Distance (ft)	185	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	11	0	0		4	3		
Queuing Penalty (veh)	16	0	0		8	5		
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	243	302	276	362	378	166	143	375	425	1200	1205
Average Queue (ft)	174	229	139	230	274	65	69	307	416	1044	1005
95th Queue (ft)	274	335	275	372	391	138	130	457	469	1478	1458
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	1	32	5	1	2	0				34	27
Queuing Penalty (veh)	2	52	8	3	9	0				389	304
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)								12	22	46	
Queuing Penalty (veh)								84	149	417	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	169	173	162	532	125	149	265	283	224	320	376	374
Average Queue (ft)	124	147	113	226	117	66	159	229	97	213	353	354
95th Queue (ft)	190	187	180	463	147	138	267	308	239	370	366	368
Link Distance (ft)	153	153	153	5700			197	197	143		349	349
Upstream Blk Time (%)	12	32	11				6	28	10		47	48
Queuing Penalty (veh)	24	60	20				20	95	67		246	252
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				20	28	2	19			5	68	
Queuing Penalty (veh)				66	31	6	10			23	98	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	269
Average Queue (ft)	101
95th Queue (ft)	229
Link Distance (ft)	349
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	190	220	122	128	107	68	123
Average Queue (ft)	59	146	37	44	26	15	47
95th Queue (ft)	144	254	97	99	72	44	99
Link Distance (ft)	207	207	153	153		1048	1048
Upstream Blk Time (%)	0	9	0	0			
Queuing Penalty (veh)	1	22	0	1			
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				1	0		
Queuing Penalty (veh)				1	0		

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	230	132	101	197
Average Queue (ft)	75	52	47	68
95th Queue (ft)	177	96	79	151
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	23	90
Average Queue (ft)	1	46
95th Queue (ft)	11	74
Link Distance (ft)	2311	1194
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	55	105	297	85	193	316	310
Average Queue (ft)	12	37	47	19	15	251	239
95th Queue (ft)	39	81	189	61	95	340	352
Link Distance (ft)	1080	2561	4339		143	197	197
Upstream Blk Time (%)				0	1	19	12
Queuing Penalty (veh)				0	6	103	66
Storage Bay Dist (ft)				100			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	NE	NE
Directions Served	R	R	R	R
Maximum Queue (ft)	378	364	211	226
Average Queue (ft)	86	70	59	68
95th Queue (ft)	306	289	199	213
Link Distance (ft)	1279	1279	237	237
Upstream Blk Time (%)			1	1
Queuing Penalty (veh)			4	9
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	314	58	83	280	233	236
Average Queue (ft)	116	6	3	16	116	107
95th Queue (ft)	280	52	56	141	260	240
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)	7				20	18
Queuing Penalty (veh)	13				209	181
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	314
Average Queue (ft)	137
95th Queue (ft)	286
Link Distance (ft)	375
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	WB
Directions Served	T
Maximum Queue (ft)	76
Average Queue (ft)	6
95th Queue (ft)	38
Link Distance (ft)	4339
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	114
Average Queue (ft)	83
95th Queue (ft)	102
Link Distance (ft)	18
Upstream Blk Time (%)	58
Queuing Penalty (veh)	377
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	736	735
Average Queue (ft)	614	623
95th Queue (ft)	859	856
Link Distance (ft)	667	667
Upstream Blk Time (%)	27	32
Queuing Penalty (veh)	180	210
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	528	551	123	296	319	150	2545	2542
Average Queue (ft)	455	533	25	156	180	40	1769	1751
95th Queue (ft)	649	553	73	269	293	140	2880	2867
Link Distance (ft)	506	528		988	988		2506	2506
Upstream Blk Time (%)	69	100					29	26
Queuing Penalty (veh)	0	0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)			0	10		0	94	
Queuing Penalty (veh)			0	2		0	14	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	101	160
Average Queue (ft)	7	31
95th Queue (ft)	97	131
Link Distance (ft)	1451	1451
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB
Directions Served	T	T
Maximum Queue (ft)	45	41
Average Queue (ft)	3	2
95th Queue (ft)	36	33
Link Distance (ft)	560	560
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 5559

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.1	7.0	5.0	0.2	0.2	4.3
Total Del/Veh (s)	18.2	18.0	26.2	22.1	16.2	11.2	22.5
Vehicles Entered	14	248	572	130	93	22	1079
Vehicles Exited	14	246	572	130	91	21	1074
Hourly Exit Rate	14	246	572	130	91	21	1074
Input Volume	13	250	644	142	90	20	1160
% of Volume	106	98	89	92	101	104	93
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	3	0	0	0	3

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	21.2	2.2	10.2	15.3	229.6	65.6	187.7	14.8
Vehicles Entered	264	80	386	711	1	2	2	1446
Vehicles Exited	262	80	384	710	1	2	2	1441
Hourly Exit Rate	262	80	384	710	1	2	2	1441
Input Volume	268	79	406	793	1	1	2	1550
% of Volume	98	101	95	90	100	200	100	93
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	13.1	7.3	0.0	0.0	0.0	0.1	0.2	0.4	0.0	0.0	0.0
Total Del/Veh (s)	120.1	282.0	6.6	54.7	61.5	21.4	83.5	26.6	23.5	117.6	48.4	37.6
Vehicles Entered	11	97	151	278	654	487	288	580	625	55	666	134
Vehicles Exited	10	92	151	278	653	487	288	580	625	54	669	134
Hourly Exit Rate	10	92	151	278	653	487	288	580	625	54	669	134
Input Volume	11	100	156	274	700	508	350	706	753	55	675	125
% of Volume	91	92	97	102	93	96	82	82	83	99	99	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	48.3
Vehicles Entered	4026
Vehicles Exited	4021
Hourly Exit Rate	4021
Input Volume	4412
% of Volume	91
Denied Entry Before	0
Denied Entry After	1

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	4.5	0.0	5.8	0.1	0.1	2.2
Total Del/Veh (s)	33.8	37.1	5.8	172.0	67.4	154.0	117.1	78.5	91.8
Vehicles Entered	767	697	16	670	26	505	8	64	2753
Vehicles Exited	770	698	16	657	26	497	8	65	2737
Hourly Exit Rate	770	698	16	657	26	497	8	65	2737
Input Volume	904	690	17	729	25	573	8	64	3010
% of Volume	85	101	93	90	104	87	100	102	91
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	1	0	0	2

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.0
Total Del/Veh (s)	60.5	53.7	17.0	50.8	37.5	75.0	73.3	12.4	75.1	23.2	36.6
Vehicles Entered	11	334	931	525	108	77	7	31	87	98	2209
Vehicles Exited	11	334	930	525	108	77	7	31	87	98	2208
Hourly Exit Rate	11	334	930	525	108	77	7	31	87	98	2208
Input Volume	13	388	1083	520	105	74	7	29	89	99	2409
% of Volume	83	86	86	101	103	104	100	106	97	99	92
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1
Total Del/Veh (s)	48.8	48.8	7.4	68.8	71.3	41.5	55.9	37.8
Vehicles Entered	11	297	741	481	27	8	152	1717
Vehicles Exited	11	297	738	473	26	8	151	1704
Hourly Exit Rate	11	297	738	473	26	8	151	1704
Input Volume	13	350	839	466	26	7	149	1850
% of Volume	83	85	88	102	99	114	101	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue#1/University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.5	0.0	1.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	100.2	38.8	78.4	54.9	10.9	38.7	7.0	46.9
Vehicles Entered	294	2	653	1047	208	587	831	3622
Vehicles Exited	292	2	653	1043	209	586	832	3617
Hourly Exit Rate	292	2	653	1043	209	586	832	3617
Input Volume	321	3	706	1336	270	607	853	4095
% of Volume	91	73	92	78	77	97	98	88
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue#1 & University Avenue#1 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Del/Veh (s)	0.8	0.3	0.3	0.2	0.3	0.3	0.3	1.6	0.3	0.0	0.0	0.0
Total Del/Veh (s)	77.2	49.6	30.7	402.4	421.1	431.9	106.0	71.3	95.0	80.8	79.2	32.9
Vehicles Entered	466	78	40	12	56	304	16	539	10	6	217	548
Vehicles Exited	464	79	40	11	46	254	16	536	10	7	217	547
Hourly Exit Rate	464	79	40	11	46	254	16	536	10	7	217	547
Input Volume	520	88	45	12	57	300	25	787	13	6	225	577
% of Volume	89	90	88	92	80	85	63	68	77	117	97	95
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	1	0	0	0	0

8: Woodland Avenue#1 & University Avenue#1 Performance by movement

Movement	SBR	All
Denied Del/Veh (s)	0.0	0.5
Total Del/Veh (s)	6.8	109.8
Vehicles Entered	348	2640
Vehicles Exited	348	2575
Hourly Exit Rate	348	2575
Input Volume	365	3020
% of Volume	95	85
Denied Entry Before	0	0
Denied Entry After	0	1

9: #2/Woodland Avenue#1 & University Circle#1 Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.6	0.0	0.0	0.1	0.2	0.2
Total Del/Veh (s)	64.0	92.2	7.8	2.6	115.6	133.5	62.9
Vehicles Entered	6	376	343	74	219	7	1025
Vehicles Exited	6	367	344	74	214	7	1012
Hourly Exit Rate	6	367	344	74	214	7	1012
Input Volume	8	428	378	76	220	7	1117
% of Volume	73	86	91	97	97	97	91
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: #2 & Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	14.1	0.0	0.0	0.2	0.3	4.2
Total Del/Veh (s)	47.2	164.9	8.3	6.8	161.1	183.1	92.4
Vehicles Entered	1	224	153	194	185	6	763
Vehicles Exited	1	211	153	193	176	6	740
Hourly Exit Rate	1	211	153	193	176	6	740
Input Volume	2	258	166	215	181	6	828
% of Volume	50	82	92	90	97	100	89
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	3	0	0	0	0	3

11: Woodland Avenue/#2 & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		0.2	0.0	0.0	0.3	0.2	0.1
Total Del/Veh (s)		169.9	2.6	2.4	325.3	239.5	139.6
Vehicles Entered	0	168	106	52	84	9	419
Vehicles Exited	0	157	106	52	65	7	387
Hourly Exit Rate	0	157	106	52	65	7	387
Input Volume	1	168	114	60	85	8	436
% of Volume	0	93	93	87	76	85	89
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		144.8	228.0	0.0	0.1	0.0	73.8
Total Del/Veh (s)	2262.3	1889.8	2272.5		577.1	525.6	92.3	1.9	1.2	451.8
Vehicles Entered	3	8	64	0	632	3	7	593	3	1313
Vehicles Exited	1	1	2	0	550	3	7	593	3	1160
Hourly Exit Rate	1	1	2	0	550	3	7	593	3	1160
Input Volume	4	8	65	1	744	3	10	626	4	1465
% of Volume	25	13	3	0	74	100	68	95	75	79
Denied Entry Before	0	0	0	0	2	0	0	0	0	2
Denied Entry After	0	0	0	0	64	0	0	0	0	64

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	145.4	1.4	2.7	82.9
Vehicles Entered	993	2	795	1790
Vehicles Exited	946	2	795	1743
Hourly Exit Rate	946	2	795	1743
Input Volume	1027	2	877	1906
% of Volume	92	89	91	91
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.7	0.2	0.0	0.4
Total Del/Veh (s)	1.9	71.7	76.6	1.4	40.6
Vehicles Entered	389	1496	201	1032	3118
Vehicles Exited	388	1489	199	1032	3108
Hourly Exit Rate	388	1489	199	1032	3108
Input Volume	423	1805	238	1038	3504
% of Volume	92	82	84	99	89
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	17.4	17.4
Vehicles Entered	476	476
Vehicles Exited	477	477
Hourly Exit Rate	477	477
Input Volume	496	496
% of Volume	96	96
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	4.5	3.4	3.9
Total Del/Veh (s)	38.6	19.1	26.6
Vehicles Entered	648	1011	1659
Vehicles Exited	622	1014	1636
Hourly Exit Rate	622	1014	1636
Input Volume	669	1056	1725
% of Volume	93	96	95
Denied Entry Before	0	2	2
Denied Entry After	10	2	12

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.7	9.7
Vehicles Entered	467	467
Vehicles Exited	467	467
Hourly Exit Rate	467	467
Input Volume	486	486
% of Volume	96	96
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	20.1	20.1
Vehicles Entered	846	846
Vehicles Exited	846	846
Hourly Exit Rate	846	846
Input Volume	927	927
% of Volume	91	91
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.2	0.4	0.4	0.4	569.9	547.5	554.9	0.2	0.0	0.0
Total Del/Veh (s)	29.4	49.7	28.0	79.5	81.5	75.3	141.9	82.5	82.1	75.8	18.0	14.2
Vehicles Entered	4	81	16	107	124	33	110	1435	79	43	729	28
Vehicles Exited	4	80	16	109	124	33	108	1436	80	43	730	28
Hourly Exit Rate	4	80	16	109	124	33	108	1436	80	43	730	28
Input Volume	5	84	16	112	126	34	155	1985	113	44	727	25
% of Volume	80	96	100	98	98	96	70	72	71	97	100	111
Denied Entry Before	0	0	0	0	0	0	7	82	4	0	0	0
Denied Entry After	0	0	0	0	0	0	39	504	29	0	0	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	359.0
Total Del/Veh (s)	65.8
Vehicles Entered	2789
Vehicles Exited	2791
Hourly Exit Rate	2791
Input Volume	3426
% of Volume	81
Denied Entry Before	93
Denied Entry After	572

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	52.2	49.4	50.1
Total Del/Veh (s)	88.0	111.4	105.7
Vehicles Entered	399	1256	1655
Vehicles Exited	389	1206	1595
Hourly Exit Rate	389	1206	1595
Input Volume	423	1320	1743
% of Volume	92	91	92
Denied Entry Before	0	1	1
Denied Entry After	18	61	79

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	1.5	1.5	1.5
Vehicles Entered	506	749	1255
Vehicles Exited	507	751	1258
Hourly Exit Rate	507	751	1258
Input Volume	489	849	1338
% of Volume	104	88	94
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: University Avenue Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.5	0.2
Total Del/Veh (s)	138.4	22.2	99.9
Vehicles Entered	1473	760	2233
Vehicles Exited	1473	760	2233
Hourly Exit Rate	1473	760	2233
Input Volume	2024	762	2786
% of Volume	73	100	80
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	15.1	289.3	211.7
Vehicles Entered	235	578	813
Vehicles Exited	236	527	763
Hourly Exit Rate	236	527	763
Input Volume	239	649	888
% of Volume	99	81	86
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	159.2
Total Del/Veh (s)	351.0
Vehicles Entered	8206
Vehicles Exited	7663
Hourly Exit Rate	7663
Input Volume	58128
% of Volume	13
Denied Entry Before	98
Denied Entry After	737

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	92	160	220	113
Average Queue (ft)	45	62	198	45
95th Queue (ft)	98	147	232	114
Link Distance (ft)		2005	202	694
Upstream Blk Time (%)			10	
Queuing Penalty (veh)			78	
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	0	1		
Queuing Penalty (veh)	0	1		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	T	TR	L	TR	LTR
Maximum Queue (ft)	113	70	254	313	41
Average Queue (ft)	42	8	98	164	8
95th Queue (ft)	160	43	199	341	35
Link Distance (ft)	202	202	328	328	453
Upstream Blk Time (%)	6	0		1	
Queuing Penalty (veh)	10	0		3	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	198	297	93	249	300	289	278	138	235	237	261	87
Average Queue (ft)	36	210	38	180	263	256	142	37	184	167	229	84
95th Queue (ft)	168	406	72	319	299	302	271	105	251	289	269	97
Link Distance (ft)		328	328		249	249	249	87	87	87	87	
Upstream Blk Time (%)		27		3	30	29	2	1	65	15	37	27
Queuing Penalty (veh)		35		0	148	145	8	5	294	66	166	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		47		10	41						37	27
Queuing Penalty (veh)		5		49	56						277	94

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	242	493	406
Average Queue (ft)	83	250	184
95th Queue (ft)	203	431	359
Link Distance (ft)		988	988
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	235		
Storage Blk Time (%)	0	18	
Queuing Penalty (veh)	1	10	

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	279	265	288	273	188	756	719	787	600	336	376	56
Average Queue (ft)	228	150	187	122	33	654	587	577	542	205	297	12
95th Queue (ft)	313	277	325	271	117	969	944	1099	746	441	483	44
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	21	1	13	2	0	47	19	51		32	61	
Queuing Penalty (veh)	95	5	31	6	1	205	84	225		209	403	
Storage Bay Dist (ft)									500			
Storage Blk Time (%)								3	62			
Queuing Penalty (veh)								16	11			

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	163
Average Queue (ft)	66
95th Queue (ft)	139
Link Distance (ft)	525
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	R	LT	R
Maximum Queue (ft)	150	287	263	217	205	214	98	108	62	206	166
Average Queue (ft)	144	258	110	44	162	170	39	38	21	79	52
95th Queue (ft)	166	322	222	135	228	236	89	86	49	167	125
Link Distance (ft)		258	258	258	185	185	497	497	497	939	939
Upstream Blk Time (%)		34	0	0	21	27					
Queuing Penalty (veh)		166	1	0	66	85					
Storage Bay Dist (ft)	100										
Storage Blk Time (%)	48	17									
Queuing Penalty (veh)	174	68									

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	210	171	221	139	442	456	40	283
Average Queue (ft)	180	57	77	23	185	205	6	111
95th Queue (ft)	246	157	191	89	468	490	26	276
Link Distance (ft)	185	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	26	0	1	0	5	8		
Queuing Penalty (veh)	78	0	3	0	13	19		
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue#1/University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	279	306	322	379	380	258	112	326	333	264	181
Average Queue (ft)	210	285	289	349	357	45	33	146	170	58	86
95th Queue (ft)	308	313	316	387	377	156	86	269	286	164	155
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	2	66	74	19	31	1					
Queuing Penalty (veh)	7	227	254	101	166	3					
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)						0		1	1	0	
Queuing Penalty (veh)						0		3	3	0	

Intersection: 8: Woodland Avenue#1 & University Avenue#1

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	190	183	151	2056	125	111	225	231	294	318	366	328
Average Queue (ft)	159	161	62	1238	124	26	151	200	267	211	163	162
95th Queue (ft)	186	173	145	2345	132	81	244	238	297	316	302	277
Link Distance (ft)	156	156	156	5698			144	144	202		349	349
Upstream Blk Time (%)	59	70	2			0	30	70	68		1	0
Queuing Penalty (veh)	126	149	5			0	123	285	549		5	1
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				3	88	0	41			9	1	
Queuing Penalty (veh)				10	61	0	10			27	3	

Intersection: 8: Woodland Avenue#1 & University Avenue#1

Movement	SB
Directions Served	R
Maximum Queue (ft)	173
Average Queue (ft)	70
95th Queue (ft)	132
Link Distance (ft)	349
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: #2/Woodland Avenue#1 & University Circle#1

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	215	223	121	160	96	357	427
Average Queue (ft)	125	197	39	60	15	115	181
95th Queue (ft)	228	259	93	122	59	257	349
Link Distance (ft)	207	207	156	156		1048	1048
Upstream Blk Time (%)	7	53	0	0			
Queuing Penalty (veh)	14	115	0	1			
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				2	0		
Queuing Penalty (veh)				1	0		

Intersection: 10: #2 & Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	383	111	152	671
Average Queue (ft)	282	50	63	264
95th Queue (ft)	502	85	114	627
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	41		0	
Queuing Penalty (veh)	103		0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue/#2 & Euclid Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	668	633
Average Queue (ft)	232	220
95th Queue (ft)	751	662
Link Distance (ft)	2311	1194
Upstream Blk Time (%)		1
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	294	1876	4206	50	273	259	252
Average Queue (ft)	181	1227	3239	9	29	162	125
95th Queue (ft)	339	1950	4633	35	153	293	271
Link Distance (ft)	1080	2561	4352		202	144	144
Upstream Blk Time (%)			7		1	10	5
Queuing Penalty (veh)			46		6	31	15
Storage Bay Dist (ft)				100			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17	NE	NE
Directions Served	R	R	T	R	R
Maximum Queue (ft)	1062	1057	659	19	25
Average Queue (ft)	664	652	111	1	1
95th Queue (ft)	1350	1342	681	20	20
Link Distance (ft)	1279	1279	4248	237	237
Upstream Blk Time (%)	7	5			
Queuing Penalty (veh)	0	0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	114	1168	1059	1056	47	73
Average Queue (ft)	30	264	663	773	3	12
95th Queue (ft)	84	1187	1246	1343	22	44
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)			2	6		0
Queuing Penalty (veh)			19	58		0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	318
Average Queue (ft)	158
95th Queue (ft)	271
Link Distance (ft)	375
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	769	48
Average Queue (ft)	169	3
95th Queue (ft)	1030	28
Link Distance (ft)	2340	4352
Upstream Blk Time (%)	3	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	109
Average Queue (ft)	81
95th Queue (ft)	96
Link Distance (ft)	18
Upstream Blk Time (%)	45
Queuing Penalty (veh)	220
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	303	312
Average Queue (ft)	144	158
95th Queue (ft)	254	265
Link Distance (ft)	667	667
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	179	450	150	852	864	149	275	234
Average Queue (ft)	72	255	130	694	716	56	159	133
95th Queue (ft)	141	415	184	825	845	126	246	216
Link Distance (ft)	507	528		988	988		1055	1055
Upstream Blk Time (%)		1						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)			16	56		0	13	
Queuing Penalty (veh)			161	87		0	6	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	1490	1485
Average Queue (ft)	853	862
95th Queue (ft)	1841	1839
Link Distance (ft)	1451	1451
Upstream Blk Time (%)	21	28
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB
Directions Served	T	T
Maximum Queue (ft)	39	56
Average Queue (ft)	5	7
95th Queue (ft)	38	50
Link Distance (ft)	560	560
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 57: University Avenue

Movement	NB	NB	SB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	1085	1087	233	216
Average Queue (ft)	1047	1053	187	116
95th Queue (ft)	1094	1095	249	208
Link Distance (ft)	1055	1055	202	202
Upstream Blk Time (%)	4	7	10	1
Queuing Penalty (veh)	42	70	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 61: Donohoe Street

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	170	1853
Average Queue (ft)	80	1266
95th Queue (ft)	136	2194
Link Distance (ft)	1392	2005
Upstream Blk Time (%)		2
Queuing Penalty (veh)		13
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 6543

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	48.1	4.2	0.0	0.0	5.2	7.2	4.0
Total Del/Veh (s)	130.9	129.3	11.9	6.7	63.8	66.6	88.0
Vehicles Entered	1	482	113	37	352	6	991
Vehicles Exited	1	454	114	37	348	6	960
Hourly Exit Rate	1	454	114	37	348	6	960
Input Volume	2	485	122	41	360	5	1015
% of Volume	50	94	93	91	97	114	95
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	5	0	0	3	0	8

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	All
Denied Del/Veh (s)	0.9	1.1	2.5	1.3	0.0	0.1	0.1	1.4
Total Del/Veh (s)	9.9	10.1	75.7	7.7	8.5	425.7	569.9	28.1
Vehicles Entered	597	238	357	155	2	1	1	1351
Vehicles Exited	595	237	357	155	2	1	1	1348
Hourly Exit Rate	595	237	357	155	2	1	1	1348
Input Volume	628	249	415	170	3	1	1	1467
% of Volume	95	95	86	91	67	80	80	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	1.5	6.5	0.1	0.1	0.0	0.1	0.1	0.0	129.9	132.4	109.4
Total Del/Veh (s)	85.7	83.7	52.1	83.0	79.9	17.9	85.8	15.4	4.8	325.6	323.0	337.1
Vehicles Entered	12	71	497	444	376	396	85	382	448	14	688	55
Vehicles Exited	12	71	494	445	368	395	85	381	448	15	689	54
Hourly Exit Rate	12	71	494	445	368	395	85	381	448	15	689	54
Input Volume	14	75	526	512	405	448	86	383	446	24	1129	87
% of Volume	87	95	94	87	91	88	99	100	100	63	61	62
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	2	0	0	0	0	0	0	1	39	2

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	30.7
Total Del/Veh (s)	110.9
Vehicles Entered	3468
Vehicles Exited	3457
Hourly Exit Rate	3457
Input Volume	4134
% of Volume	84
Denied Entry Before	0
Denied Entry After	44

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.5	0.0	2.4	0.0	1.4	0.1	0.1	0.8
Total Del/Veh (s)	9.6	43.2	6.7	218.7	66.3	13.9	98.0	117.9	69.3
Vehicles Entered	545	797	20	432	73	203	2	19	2091
Vehicles Exited	544	791	20	411	73	202	2	18	2061
Hourly Exit Rate	544	791	20	411	73	202	2	18	2061
Input Volume	553	889	22	460	75	222	2	19	2242
% of Volume	98	89	92	89	98	91	100	95	92
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.5	0.6	0.1	4.9	5.0	1.4
Total Del/Veh (s)	57.0	52.2	13.5	67.1	35.7	125.1	47.9	117.7	55.6
Vehicles Entered	14	162	575	506	25	12	75	304	1673
Vehicles Exited	14	163	575	498	25	12	75	293	1655
Hourly Exit Rate	14	163	575	498	25	12	75	293	1655
Input Volume	16	170	588	582	29	11	78	302	1776
% of Volume	88	96	98	86	87	109	96	97	93
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	1	3	4

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		0.1	0.0	5.7	0.0	0.2	0.1	1.6
Total Del/Veh (s)		50.8	9.8	184.2	140.1	55.3	110.9	87.4
Vehicles Entered	0	259	370	328	7	7	259	1230
Vehicles Exited	0	255	367	293	6	7	241	1169
Hourly Exit Rate	0	255	367	293	6	7	241	1169
Input Volume	1	267	379	358	7	8	258	1278
% of Volume	0	96	97	82	83	85	93	91
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.7	0.0	0.4	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	167.8	16.6	43.9	27.7	9.2	121.7	128.0	83.6
Vehicles Entered	219	6	280	970	415	688	1117	3695
Vehicles Exited	218	6	279	970	415	682	1105	3675
Hourly Exit Rate	218	6	279	970	415	682	1105	3675
Input Volume	222	6	282	971	425	907	1404	4216
% of Volume	98	100	99	100	98	75	79	87
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.6	0.4	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.8	0.8	0.1
Total Del/Veh (s)	57.3	54.2	41.9	91.3	90.0	53.6	112.7	43.3	40.3	122.1	94.8	10.8
Vehicles Entered	407	126	64	9	99	340	52	609	8	128	828	377
Vehicles Exited	407	126	64	10	99	342	51	609	8	129	826	377
Hourly Exit Rate	407	126	64	10	99	342	51	609	8	129	826	377
Input Volume	406	123	59	10	98	348	50	616	7	158	1012	465
% of Volume	100	102	108	98	101	98	101	99	110	82	82	81
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	63.1
Vehicles Entered	3047
Vehicles Exited	3048
Hourly Exit Rate	3048
Input Volume	3354
% of Volume	91
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	15.5	28.6	5.7	2.5	47.3	33.1	18.5
Vehicles Entered	20	495	339	218	90	8	1170
Vehicles Exited	20	498	339	218	91	8	1174
Hourly Exit Rate	20	498	339	218	91	8	1174
Input Volume	20	489	397	245	91	6	1249
% of Volume	99	102	85	89	100	128	94
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	1.9	0.0	0.0	0.2	0.3	0.7
Total Del/Veh (s)	33.3	32.5	9.2	5.4	32.7	32.3	23.0
Vehicles Entered	2	276	183	145	243	6	855
Vehicles Exited	2	278	183	145	244	6	858
Hourly Exit Rate	2	278	183	145	244	6	858
Input Volume	3	278	213	163	240	6	902
% of Volume	67	100	86	89	102	104	95
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	5.3	3.0	2.5	2.3	18.6	20.6	8.1
Vehicles Entered	3	121	163	38	149	15	489
Vehicles Exited	3	122	163	38	148	15	489
Hourly Exit Rate	3	122	163	38	148	15	489
Input Volume	4	121	186	43	151	14	518
% of Volume	80	101	88	88	98	109	94
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	49.4	29.6	18.9	25.2	15.2	16.0	6.0	1.3	0.8	8.2
Vehicles Entered	3	8	66	1	664	4	38	853	4	1641
Vehicles Exited	3	8	67	1	664	4	38	852	4	1641
Hourly Exit Rate	3	8	67	1	664	4	38	852	4	1641
Input Volume	4	8	65	1	669	3	47	1023	4	1824
% of Volume	75	103	103	100	99	133	80	83	100	90
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	24.1	2.0	4.4	10.6
Vehicles Entered	499	4	1098	1601
Vehicles Exited	500	4	1099	1603
Hourly Exit Rate	500	4	1099	1603
Input Volume	504	5	1332	1841
% of Volume	99	84	83	87
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.6	0.3
Total Del/Veh (s)	44.0	7.0	8.0	7.6	9.7
Vehicles Entered	189	912	326	1683	3110
Vehicles Exited	188	913	326	1682	3109
Hourly Exit Rate	188	913	326	1682	3109
Input Volume	198	913	327	2191	3630
% of Volume	95	100	100	77	86
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	1	1

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.3	0.3
Total Del/Veh (s)	17.6	17.6
Vehicles Entered	612	612
Vehicles Exited	612	612
Hourly Exit Rate	612	612
Input Volume	682	682
% of Volume	90	90
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.6	0.3	0.4
Total Del/Veh (s)	4.1	25.4	16.5
Vehicles Entered	671	895	1566
Vehicles Exited	668	894	1562
Hourly Exit Rate	668	894	1562
Input Volume	673	1066	1739
% of Volume	99	84	90
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	10.9	10.9
Vehicles Entered	593	593
Vehicles Exited	593	593
Hourly Exit Rate	593	593
Input Volume	665	665
% of Volume	89	89
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	41.0	41.0
Total Del/Veh (s)	91.8	91.8
Vehicles Entered	1169	1169
Vehicles Exited	1171	1171
Hourly Exit Rate	1171	1171
Input Volume	1408	1408
% of Volume	83	83
Denied Entry Before	0	0
Denied Entry After	7	7

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	582.2	575.3	550.2	1956.8	1928.5	1910.4	0.1	0.0	0.0	90.2	91.6	76.7
Total Del/Veh (s)	695.6	733.1	764.1	1646.9	1670.3	1780.5	65.5	16.5	15.4	602.1	574.1	564.6
Vehicles Entered	7	45	34	16	11	1	20	737	33	14	845	9
Vehicles Exited	6	41	31	15	11	2	20	737	33	11	699	7
Hourly Exit Rate	6	41	31	15	11	2	20	737	33	11	699	7
Input Volume	11	67	48	166	106	14	20	792	34	15	971	9
% of Volume	55	61	64	9	10	14	100	93	96	73	72	78
Denied Entry Before	0	1	0	31	21	3	0	0	0	0	0	0
Denied Entry After	3	23	19	177	114	15	0	0	0	1	115	1

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	363.1
Total Del/Veh (s)	376.8
Vehicles Entered	1772
Vehicles Exited	1613
Hourly Exit Rate	1613
Input Volume	2253
% of Volume	72
Denied Entry Before	56
Denied Entry After	468

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	3.2	2.9	3.0
Total Del/Veh (s)	33.7	45.5	43.0
Vehicles Entered	195	730	925
Vehicles Exited	189	699	888
Hourly Exit Rate	189	699	888
Input Volume	198	745	943
% of Volume	95	94	94
Denied Entry Before	0	0	0
Denied Entry After	3	8	11

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	46.5	1.1	22.8
Vehicles Entered	346	378	724
Vehicles Exited	324	379	703
Hourly Exit Rate	324	379	703
Input Volume	353	390	744
% of Volume	92	97	95
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	137.8
Total Del/Veh (s)	333.0
Vehicles Entered	6634
Vehicles Exited	6259
Hourly Exit Rate	6259
Input Volume	48351
% of Volume	13
Denied Entry Before	56
Denied Entry After	543

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	42	8.9	65.2	0.5	26
O Connor St	44	46.5	60.2	0.1	7
Total		55.4	125.4	0.6	17

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	27.3	39.4	0.1	7
US 101 NB Loop On-Ra	15	8.0	33.7	0.2	23
Donohoe Street	3	15.4	20.6	0.1	9
Bell St	36	25.0	48.8	0.2	15
Total		75.6	142.5	0.5	14

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bell St	36	574.1	719.2	0.5	3
Donohoe Street	3	322.3	475.2	0.2	2
US 101 NB Loop Off-R	15	7.8	13.9	0.1	15
US 101 SB Off-Ramp	7	126.8	147.1	0.2	5
Woodland Avenue	8	95.8	108.2	0.1	3
Total		1126.7	1463.6	1.0	3

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	263	1115	152	518
Average Queue (ft)	137	460	60	218
95th Queue (ft)	313	1441	113	537
Link Distance (ft)		2273	202	694
Upstream Blk Time (%)		2	0	3
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	7	31		
Queuing Penalty (veh)	16	75		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	T	TR	L	TR	LTR
Maximum Queue (ft)	174	219	411	385	34
Average Queue (ft)	34	122	269	133	6
95th Queue (ft)	145	261	452	395	29
Link Distance (ft)	202	202	328	328	453
Upstream Blk Time (%)	1	14	20	7	
Queuing Penalty (veh)	4	57	56	20	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	53	186	360	249	319	304	297	96	133	169	217	87
Average Queue (ft)	13	66	284	222	287	232	125	20	38	47	81	62
95th Queue (ft)	40	148	420	313	325	343	281	70	107	129	182	104
Link Distance (ft)		328	328		249	249	249	87	87	87	87	
Upstream Blk Time (%)		0	23	11	47	19	2	3	7	4	7	2
Queuing Penalty (veh)		0	70	0	214	88	7	8	15	8	15	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		0		32	54						7	2
Queuing Penalty (veh)		0		148	139						30	4

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	260	1030	1031
Average Queue (ft)	56	1000	999
95th Queue (ft)	212	1017	1017
Link Distance (ft)		988	988
Upstream Blk Time (%)		58	57
Queuing Penalty (veh)		345	335
Storage Bay Dist (ft)	235		
Storage Blk Time (%)		81	
Queuing Penalty (veh)		19	

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	228	162	317	300	263	716	722	303	190	145	158	22
Average Queue (ft)	85	52	269	173	49	387	427	60	68	36	46	3
95th Queue (ft)	193	129	358	343	158	822	815	198	145	161	190	16
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	0		43	9	1	18	20			8	13	
Queuing Penalty (veh)	0		128	28	2	45	49			30	49	
Storage Bay Dist (ft)									500			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	97
Average Queue (ft)	27
95th Queue (ft)	78
Link Distance (ft)	525
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	LT	R
Maximum Queue (ft)	150	273	165	97	249	250	73	36	318	741
Average Queue (ft)	118	134	60	14	185	173	12	4	81	334
95th Queue (ft)	174	269	127	52	285	303	53	20	340	785
Link Distance (ft)		258	258	258	185	185	497	497	939	939
Upstream Blk Time (%)		2	0		48	35			0	3
Queuing Penalty (veh)		5	0		146	106			0	0
Storage Bay Dist (ft)	100									
Storage Blk Time (%)	24	9								
Queuing Penalty (veh)	44	17								

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	210	145	162	78	531	531	120	645
Average Queue (ft)	171	36	56	11	259	246	16	253
95th Queue (ft)	237	105	136	47	601	590	182	685
Link Distance (ft)	185	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	17	0	0		23	19		
Queuing Penalty (veh)	27	0	0		40	34		
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	250	303	288	362	377	183	145	375	425	1176	1169
Average Queue (ft)	170	227	146	241	287	59	63	280	391	929	910
95th Queue (ft)	278	337	279	378	397	135	125	440	512	1561	1532
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	2	32	7	1	3	0				31	27
Queuing Penalty (veh)	3	53	11	4	14	0				360	315
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)						0		8	14	44	
Queuing Penalty (veh)						0		53	101	398	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	169	176	164	581	125	149	268	279	217	320	373	384
Average Queue (ft)	130	151	110	256	118	70	164	228	96	216	347	348
95th Queue (ft)	192	182	185	522	144	142	269	310	236	371	402	402
Link Distance (ft)	153	153	153	5700			197	197	143		349	349
Upstream Blk Time (%)	17	38	13				6	28	11		44	44
Queuing Penalty (veh)	34	76	26				21	95	71		237	239
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				19	35	3	19			6	65	
Queuing Penalty (veh)				65	38	9	10			29	102	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	278
Average Queue (ft)	108
95th Queue (ft)	229
Link Distance (ft)	349
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	192	221	129	139	116	55	138
Average Queue (ft)	66	166	43	49	29	15	50
95th Queue (ft)	154	264	106	105	79	42	109
Link Distance (ft)	207	207	153	153		1048	1048
Upstream Blk Time (%)	0	16	0	0			
Queuing Penalty (veh)	1	43	0	1			
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				1	0		
Queuing Penalty (veh)				1	0		

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	296	128	104	316
Average Queue (ft)	116	59	51	105
95th Queue (ft)	289	103	87	297
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	3			
Queuing Penalty (veh)	8			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	38	4	125
Average Queue (ft)	5	0	59
95th Queue (ft)	44	4	181
Link Distance (ft)	2311	376	1194
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	50	106	336	76	196	319	312
Average Queue (ft)	12	40	57	17	17	248	239
95th Queue (ft)	39	87	226	52	101	341	355
Link Distance (ft)	1080	2561	4339		143	197	197
Upstream Blk Time (%)				0	0	18	12
Queuing Penalty (veh)				0	5	96	64
Storage Bay Dist (ft)				100			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	NE	NE
Directions Served	R	R	R	R
Maximum Queue (ft)	366	368	136	156
Average Queue (ft)	89	73	19	24
95th Queue (ft)	305	285	96	111
Link Distance (ft)	1279	1279	237	237
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			0	1
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	306	72	149	273	214	230
Average Queue (ft)	108	8	11	23	109	105
95th Queue (ft)	270	75	108	192	260	245
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)	6			0	20	19
Queuing Penalty (veh)	11			0	214	205
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	314
Average Queue (ft)	138
95th Queue (ft)	289
Link Distance (ft)	375
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	WB
Directions Served	T
Maximum Queue (ft)	102
Average Queue (ft)	7
95th Queue (ft)	47
Link Distance (ft)	4339
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	113
Average Queue (ft)	83
95th Queue (ft)	106
Link Distance (ft)	18
Upstream Blk Time (%)	57
Queuing Penalty (veh)	376
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	720	722
Average Queue (ft)	513	528
95th Queue (ft)	816	822
Link Distance (ft)	667	667
Upstream Blk Time (%)	10	13
Queuing Penalty (veh)	67	84
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	540	552	116	298	315	150	2520	2522
Average Queue (ft)	485	538	25	158	179	38	1902	1887
95th Queue (ft)	632	554	74	268	290	137	2962	2953
Link Distance (ft)	506	528		988	988		2506	2506
Upstream Blk Time (%)	78	100					37	34
Queuing Penalty (veh)	0	0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)				10		0	95	
Queuing Penalty (veh)				2		0	14	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	679	704
Average Queue (ft)	162	189
95th Queue (ft)	799	825
Link Distance (ft)	1451	1451
Upstream Blk Time (%)	2	3
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB	B42	B42
Directions Served	T	T	T	T
Maximum Queue (ft)	311	306	63	64
Average Queue (ft)	64	61	11	11
95th Queue (ft)	320	316	127	127
Link Distance (ft)	560	560	2483	2483
Upstream Blk Time (%)	3	3		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 5986

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.1	11.4	12.8	0.2	0.2	7.6
Total Del/Veh (s)	49.8	25.8	29.5	25.4	17.3	16.7	27.2
Vehicles Entered	12	249	561	121	92	22	1057
Vehicles Exited	12	248	560	120	91	22	1053
Hourly Exit Rate	12	248	560	120	91	22	1053
Input Volume	13	250	644	142	90	20	1160
% of Volume	91	99	87	85	101	109	91
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	4	1	0	0	5

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	3.9	4.4	0.0	0.2	0.1	0.1	0.1	1.1
Total Del/Veh (s)	16.9	2.4	9.8	21.1	233.4	139.8	213.3	16.9
Vehicles Entered	266	80	371	695	1	1	3	1417
Vehicles Exited	265	80	372	689	0	1	2	1409
Hourly Exit Rate	265	80	372	689	0	1	2	1409
Input Volume	268	79	413	794	1	1	2	1558
% of Volume	99	101	90	87	0	100	100	90
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	1	0	0	0	0	0	0	1

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	1.8	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0
Total Del/Veh (s)	110.0	244.0	6.6	55.9	64.1	22.4	94.2	27.1	20.6	107.8	52.0	40.2
Vehicles Entered	11	97	156	289	642	466	277	585	617	54	682	126
Vehicles Exited	11	96	156	289	643	466	275	585	620	54	684	126
Hourly Exit Rate	11	96	156	289	643	466	275	585	620	54	684	126
Input Volume	11	100	156	293	706	508	350	712	769	55	683	127
% of Volume	100	96	100	99	91	92	79	82	81	99	100	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	48.9
Vehicles Entered	4002
Vehicles Exited	4005
Hourly Exit Rate	4005
Input Volume	4470
% of Volume	90
Denied Entry Before	0
Denied Entry After	0

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	6.1	2.2	9.5	0.1	0.1	3.2
Total Del/Veh (s)	30.8	37.5	5.8	192.8	70.1	140.5	96.1	70.5	91.8
Vehicles Entered	766	707	20	629	22	493	7	65	2709
Vehicles Exited	773	706	20	625	22	494	7	65	2712
Hourly Exit Rate	773	706	20	625	22	494	7	65	2712
Input Volume	919	713	17	729	25	576	8	64	3051
% of Volume	84	99	116	86	88	86	88	102	89
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	1	0	0	2

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.0
Total Del/Veh (s)	61.2	50.2	16.4	50.6	37.8	70.6	65.2	15.4	67.7	15.5	35.0
Vehicles Entered	10	333	932	539	105	74	7	31	90	105	2226
Vehicles Exited	10	332	934	540	105	73	7	31	88	105	2225
Hourly Exit Rate	10	332	934	540	105	73	7	31	88	105	2225
Input Volume	13	394	1096	536	105	74	7	29	89	108	2452
% of Volume	75	84	85	101	100	99	100	106	99	97	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Total Del/Veh (s)	51.3	47.8	8.2	60.2	64.0	42.3	45.1	34.6
Vehicles Entered	12	314	727	467	25	7	165	1717
Vehicles Exited	12	315	728	466	26	7	168	1722
Hourly Exit Rate	12	315	728	466	26	7	168	1722
Input Volume	13	363	839	466	26	7	164	1878
% of Volume	91	87	87	100	99	100	102	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue#1/University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.0	0.7	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	103.4	49.9	77.1	55.4	11.4	38.4	7.2	47.3
Vehicles Entered	293	4	666	1039	206	600	822	3630
Vehicles Exited	292	4	664	1036	207	600	820	3623
Hourly Exit Rate	292	4	664	1036	207	600	820	3623
Input Volume	321	4	711	1352	270	610	877	4144
% of Volume	91	114	93	77	77	98	94	87
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue#1 & University Avenue#1 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Del/Veh (s)	1.0	0.5	0.6	0.2	0.3	0.3	0.2	1.7	2.3	0.0	0.0	0.0
Total Del/Veh (s)	79.0	45.2	28.7	344.7	355.3	378.6	109.7	70.1	67.3	83.3	80.2	32.6
Vehicles Entered	452	75	38	12	56	304	17	543	8	5	219	532
Vehicles Exited	450	76	39	11	47	252	17	543	8	5	218	533
Hourly Exit Rate	450	76	39	11	47	252	17	543	8	5	218	533
Input Volume	530	88	45	12	57	306	25	788	13	6	233	580
% of Volume	85	87	86	92	82	82	67	69	62	83	94	92
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue#1 & University Avenue#1 Performance by movement

Movement	SBR	All
Denied Del/Veh (s)	0.0	0.6
Total Del/Veh (s)	6.5	101.5
Vehicles Entered	356	2617
Vehicles Exited	356	2555
Hourly Exit Rate	356	2555
Input Volume	379	3062
% of Volume	94	83
Denied Entry Before	0	0
Denied Entry After	0	0

9: #2/Woodland Avenue#1 & University Circle#1 Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	4.6	0.7	0.0	0.0	0.1	0.2	0.3
Total Del/Veh (s)	64.4	90.7	7.6	2.3	130.6	118.0	64.6
Vehicles Entered	6	359	357	69	218	6	1015
Vehicles Exited	6	352	357	69	208	6	998
Hourly Exit Rate	6	352	357	69	208	6	998
Input Volume	8	437	392	76	220	7	1140
% of Volume	73	81	91	91	95	83	88
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: #2 & Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	10.9	0.0	0.0	10.0	9.4	5.6
Total Del/Veh (s)	151.7	139.7	8.2	6.2	227.0	209.8	98.3
Vehicles Entered	1	225	165	197	177	6	771
Vehicles Exited	1	213	166	196	156	6	738
Hourly Exit Rate	1	213	166	196	156	6	738
Input Volume	2	268	181	215	181	6	852
% of Volume	50	79	92	91	86	100	87
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	2	0	0	2	0	4

11: Woodland Avenue/#2 & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		0.2	0.0	0.0	6.7	15.0	1.6
Total Del/Veh (s)		137.8	2.7	2.4	292.1	232.0	115.8
Vehicles Entered	0	175	120	52	82	8	437
Vehicles Exited	0	159	120	52	64	6	401
Hourly Exit Rate	0	159	120	52	64	6	401
Input Volume	1	178	128	60	85	8	461
% of Volume	0	89	94	87	75	73	87
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	0	1

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.7	34.2	125.1	101.1	0.1	0.1	0.0	65.0
Total Del/Veh (s)	2334.4	1777.3	2323.7	324.4	543.0	566.8	106.5	1.9	1.7	441.0
Vehicles Entered	3	8	62	1	650	4	9	573	4	1314
Vehicles Exited	0	1	1	1	554	3	9	573	4	1146
Hourly Exit Rate	0	1	1	1	554	3	9	573	4	1146
Input Volume	4	8	65	1	745	3	10	628	4	1468
% of Volume	0	13	2	100	74	100	88	91	100	78
Denied Entry Before	0	0	0	0	1	0	0	0	0	1
Denied Entry After	0	0	0	0	59	0	0	0	0	59

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	150.7	1.6	2.8	86.1
Vehicles Entered	1023	2	807	1832
Vehicles Exited	960	2	807	1769
Hourly Exit Rate	960	2	807	1769
Input Volume	1032	2	880	1914
% of Volume	93	89	92	92
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.6	0.7	0.0	0.3
Total Del/Veh (s)	2.2	75.2	71.5	1.4	41.9
Vehicles Entered	365	1503	199	1059	3126
Vehicles Exited	364	1474	197	1059	3094
Hourly Exit Rate	364	1474	197	1059	3094
Input Volume	423	1826	238	1066	3553
% of Volume	86	81	83	99	87
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	17.0	17.0
Vehicles Entered	463	463
Vehicles Exited	465	465
Hourly Exit Rate	465	465
Input Volume	504	504
% of Volume	92	92
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	1.3	3.4	2.6
Total Del/Veh (s)	27.1	19.1	22.2
Vehicles Entered	663	999	1662
Vehicles Exited	631	1000	1631
Hourly Exit Rate	631	1000	1631
Input Volume	670	1058	1728
% of Volume	94	94	94
Denied Entry Before	0	2	2
Denied Entry After	4	1	5

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.8	9.8
Vehicles Entered	455	455
Vehicles Exited	455	455
Hourly Exit Rate	455	455
Input Volume	493	493
% of Volume	92	92
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	20.0	20.0
Vehicles Entered	856	856
Vehicles Exited	860	860
Hourly Exit Rate	860	860
Input Volume	930	930
% of Volume	92	92
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.2	0.2	1.3	1.3	2.1	615.7	603.8	620.0	0.3	0.0	0.0
Total Del/Veh (s)	59.8	49.2	31.9	82.3	87.1	78.6	143.4	82.9	83.8	75.9	18.6	13.8
Vehicles Entered	5	86	17	113	126	32	109	1421	82	43	734	24
Vehicles Exited	5	86	17	112	126	32	109	1421	82	43	733	25
Hourly Exit Rate	5	86	17	112	126	32	109	1421	82	43	733	25
Input Volume	5	84	16	112	126	34	155	1991	113	44	737	25
% of Volume	100	103	106	100	100	93	70	71	73	97	99	99
Denied Entry Before	0	0	0	0	0	0	8	102	6	0	0	0
Denied Entry After	0	0	0	0	0	0	41	526	31	0	0	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	394.8
Total Del/Veh (s)	66.7
Vehicles Entered	2792
Vehicles Exited	2791
Hourly Exit Rate	2791
Input Volume	3442
% of Volume	81
Denied Entry Before	116
Denied Entry After	598

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	154.6	157.1	156.5
Total Del/Veh (s)	140.6	163.1	157.8
Vehicles Entered	378	1197	1575
Vehicles Exited	363	1145	1508
Hourly Exit Rate	363	1145	1508
Input Volume	423	1323	1746
% of Volume	86	87	86
Denied Entry Before	1	4	5
Denied Entry After	44	142	186

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.5	1.6	1.2
Vehicles Entered	490	739	1229
Vehicles Exited	490	738	1228
Hourly Exit Rate	490	738	1228
Input Volume	489	849	1338
% of Volume	100	87	92
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: University Avenue Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.5	0.2
Total Del/Veh (s)	139.6	22.8	100.8
Vehicles Entered	1458	756	2214
Vehicles Exited	1458	756	2214
Hourly Exit Rate	1458	756	2214
Input Volume	2030	762	2792
% of Volume	72	99	79
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	14.6	369.4	268.5
Vehicles Entered	236	569	805
Vehicles Exited	236	522	758
Hourly Exit Rate	236	522	758
Input Volume	239	649	888
% of Volume	99	80	85
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	191.3
Total Del/Veh (s)	361.0
Vehicles Entered	8218
Vehicles Exited	7642
Hourly Exit Rate	7642
Input Volume	58637
% of Volume	13
Denied Entry Before	124
Denied Entry After	861

Arterial Level of Service: NB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Woodland Avenue#1	8	6.8	20.5	0.1	14
University Circle#1	9	2.3	11.9	0.0	15
Total		9.1	32.4	0.1	14

Arterial Level of Service: SB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
#2	9	130.6	155.7	0.2	5
	8	73.2	81.2	0.0	2
US 101 SB Off-Ramp	7	56.4	70.2	0.1	4
Total		260.2	307.1	0.3	4

Arterial Level of Service: EB #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Manhattan Ave	10	140.4	165.9	0.1	2
University Circle#1	9	87.9	95.9	0.1	2
Total		228.2	261.9	0.1	2

Arterial Level of Service: WB #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Manhattan Ave	10	8.3	14.9	0.1	12
Euclid Avenue	11	2.8	12.4	0.1	24
Total		11.1	27.2	0.1	18

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	103	189	219	122
Average Queue (ft)	53	75	201	47
95th Queue (ft)	141	248	230	116
Link Distance (ft)		2005	202	694
Upstream Blk Time (%)			15	
Queuing Penalty (veh)			112	
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	3	1		
Queuing Penalty (veh)	4	1		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	T	TR	L	TR	LTR
Maximum Queue (ft)	85	47	290	342	38
Average Queue (ft)	30	7	97	201	7
95th Queue (ft)	139	43	215	386	32
Link Distance (ft)	202	202	328	328	453
Upstream Blk Time (%)	8	1	0	1	
Queuing Penalty (veh)	14	1	1	9	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	165	303	99	249	301	290	265	103	235	236	257	87
Average Queue (ft)	26	193	40	184	264	256	139	31	191	160	227	84
95th Queue (ft)	132	368	77	325	298	301	266	94	255	289	269	96
Link Distance (ft)		328	328		249	249	249	87	87	87	87	
Upstream Blk Time (%)		19		3	31	32	2	1	70	12	35	21
Queuing Penalty (veh)		25		0	158	160	9	5	319	55	161	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		38		10	42						35	21
Queuing Penalty (veh)		4		49	61						272	73

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	250	527	459
Average Queue (ft)	82	272	197
95th Queue (ft)	212	495	393
Link Distance (ft)		988	988
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	235		
Storage Blk Time (%)	1	23	
Queuing Penalty (veh)	2	13	

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	280	272	286	267	191	788	757	781	600	346	372	45
Average Queue (ft)	214	152	195	127	31	687	632	525	512	229	331	10
95th Queue (ft)	317	275	326	274	111	946	941	1094	747	456	433	35
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	15	1	12	3	0	56	29	45		43	69	
Queuing Penalty (veh)	71	5	29	8	0	249	126	197		281	454	
Storage Bay Dist (ft)									500			
Storage Blk Time (%)								2	53			
Queuing Penalty (veh)								10	10			

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	171
Average Queue (ft)	64
95th Queue (ft)	139
Link Distance (ft)	525
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	R	LT	R
Maximum Queue (ft)	150	282	252	184	210	220	103	104	66	183	124
Average Queue (ft)	145	250	104	39	164	175	36	37	22	75	46
95th Queue (ft)	164	331	208	113	232	240	87	85	54	149	95
Link Distance (ft)		258	258	258	185	185	497	497	497	939	939
Upstream Blk Time (%)		28	0	0	24	29					
Queuing Penalty (veh)		141	0	0	76	94					
Storage Bay Dist (ft)	100										
Storage Blk Time (%)	46	17									
Queuing Penalty (veh)	167	69									

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	209	172	212	158	369	387	36	249
Average Queue (ft)	185	61	81	28	169	193	6	107
95th Queue (ft)	239	159	192	102	385	410	24	227
Link Distance (ft)	185	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	27	0	1	0	1	1		
Queuing Penalty (veh)	82	0	3	0	2	3		
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue#1/University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	271	322	323	382	387	308	118	296	298	205	224
Average Queue (ft)	212	288	290	350	357	51	35	151	174	57	87
95th Queue (ft)	303	309	318	389	379	176	90	261	276	184	212
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	3	71	76	21	31	1				0	0
Queuing Penalty (veh)	9	244	262	113	166	4				0	0
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)								0	0	0	
Queuing Penalty (veh)								1	1	0	

Intersection: 8: Woodland Avenue#1 & University Avenue#1

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	188	188	153	2017	125	126	224	237	282	317	365	324
Average Queue (ft)	158	161	58	1074	124	27	146	203	265	208	164	160
95th Queue (ft)	183	176	139	2266	134	85	238	242	297	316	310	277
Link Distance (ft)	156	156	156	5698			144	144	202		349	349
Upstream Blk Time (%)	56	69	3			0	27	69	68		2	0
Queuing Penalty (veh)	123	149	6			0	112	279	552		7	0
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				4	84	0	37			10	1	
Queuing Penalty (veh)				13	58	0	9			29	3	

Intersection: 8: Woodland Avenue#1 & University Avenue#1

Movement	SB
Directions Served	R
Maximum Queue (ft)	174
Average Queue (ft)	68
95th Queue (ft)	131
Link Distance (ft)	349
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: #2/Woodland Avenue#1 & University Circle#1

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	217	224	129	145	99	363	408
Average Queue (ft)	121	189	44	54	14	121	181
95th Queue (ft)	228	263	98	110	54	288	361
Link Distance (ft)	207	207	156	156		1048	1048
Upstream Blk Time (%)	8	48	0	0			
Queuing Penalty (veh)	18	106	0	0			
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				1	0		
Queuing Penalty (veh)				1	0		

Intersection: 10: #2 & Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	376	113	131	751
Average Queue (ft)	250	52	61	325
95th Queue (ft)	486	88	104	871
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	33			5
Queuing Penalty (veh)	86			0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue/#2 & Euclid Avenue

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	560	2	543
Average Queue (ft)	185	0	198
95th Queue (ft)	673	3	666
Link Distance (ft)	2311	376	1194
Upstream Blk Time (%)			2
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	277	1890	4323	57	239	259	253
Average Queue (ft)	167	1246	3107	12	21	154	111
95th Queue (ft)	342	2056	4694	42	126	284	258
Link Distance (ft)	1080	2561	4352		202	144	144
Upstream Blk Time (%)		0	7		1	8	4
Queuing Penalty (veh)		0	49		5	26	13
Storage Bay Dist (ft)				100			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				0	0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17	NE
Directions Served	R	R	T	R
Maximum Queue (ft)	1176	1172	736	8
Average Queue (ft)	708	693	201	0
95th Queue (ft)	1377	1380	1219	3
Link Distance (ft)	1279	1279	4248	237
Upstream Blk Time (%)	7	6		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	124	1390	1054	1056	56	74
Average Queue (ft)	33	308	663	749	3	11
95th Queue (ft)	88	1287	1260	1333	24	45
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)			2	5	0	0
Queuing Penalty (veh)			16	46	0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	295
Average Queue (ft)	152
95th Queue (ft)	264
Link Distance (ft)	375
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	901	56
Average Queue (ft)	114	3
95th Queue (ft)	721	27
Link Distance (ft)	2340	4352
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	107
Average Queue (ft)	80
95th Queue (ft)	93
Link Distance (ft)	18
Upstream Blk Time (%)	45
Queuing Penalty (veh)	221
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	277	298
Average Queue (ft)	149	166
95th Queue (ft)	247	263
Link Distance (ft)	667	667
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	171	463	150	877	890	149	277	267
Average Queue (ft)	78	259	129	700	722	57	167	140
95th Queue (ft)	147	419	185	845	861	132	258	235
Link Distance (ft)	507	528		988	988		1055	1055
Upstream Blk Time (%)		2			0			
Queuing Penalty (veh)		0			0			
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)			18	54		1	13	
Queuing Penalty (veh)			177	83		2	6	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	1499	1498
Average Queue (ft)	1170	1176
95th Queue (ft)	1986	1975
Link Distance (ft)	1451	1451
Upstream Blk Time (%)	37	51
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB
Directions Served	T	T
Maximum Queue (ft)	5	10
Average Queue (ft)	0	1
95th Queue (ft)	9	14
Link Distance (ft)	560	560
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 57: University Avenue

Movement	NB	NB	SB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	1081	1092	226	217
Average Queue (ft)	1049	1056	184	114
95th Queue (ft)	1085	1085	250	214
Link Distance (ft)	1055	1055	202	202
Upstream Blk Time (%)	4	7	11	1
Queuing Penalty (veh)	44	70	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 61: Donohoe Street

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	148	1979
Average Queue (ft)	78	1609
95th Queue (ft)	129	2349
Link Distance (ft)	1392	2005
Upstream Blk Time (%)		5
Queuing Penalty (veh)		32
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 6723

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	757.5	809.6	0.0	0.0	208.9	201.0	568.2
Total Del/Veh (s)	415.0	479.9	13.7	8.2	216.6	229.4	345.6
Vehicles Entered	6	576	75	28	408	6	1099
Vehicles Exited	6	576	75	28	404	6	1095
Hourly Exit Rate	6	576	75	28	404	6	1095
Input Volume	9	870	152	56	461	6	1554
% of Volume	69	66	49	50	88	96	70
Denied Entry Before	0	54	0	0	5	0	59
Denied Entry After	3	353	0	0	51	1	408

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	1.0	1.1	82.2	23.2	51.5	764.3	781.9	688.1	30.6
Total Del/Veh (s)	4.0	3.6	3.0	181.1	20.1	17.6	2984.2	3073.2	2648.8	80.0
Vehicles Entered	12	603	412	254	102	78	4	5	3	1473
Vehicles Exited	12	602	412	258	103	79	1	0	0	1467
Hourly Exit Rate	12	602	412	258	103	79	1	0	0	1467
Input Volume	17	812	553	591	216	163	8	10	6	2375
% of Volume	72	74	74	44	48	48	13	0	0	62
Denied Entry Before	0	0	0	2	0	1	0	0	0	3
Denied Entry After	0	1	1	10	1	2	4	4	2	25

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.1	0.8	0.1	0.4	0.0	31.5	14.8	19.4	134.2	93.5	105.3
Total Del/Veh (s)	65.3	92.3	27.2	106.8	295.2	24.1	433.1	31.9	15.8	307.3	202.3	183.6
Vehicles Entered	14	67	500	14	235	225	98	462	390	21	993	96
Vehicles Exited	14	67	496	13	232	228	95	464	390	22	1014	97
Hourly Exit Rate	14	67	496	13	232	228	95	464	390	22	1014	97
Input Volume	21	93	675	627	659	617	182	739	621	27	1234	113
% of Volume	67	72	74	2	35	37	52	63	63	81	82	86
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	1	1	1	1	32	4

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	40.4
Total Del/Veh (s)	127.3
Vehicles Entered	3115
Vehicles Exited	3132
Hourly Exit Rate	3132
Input Volume	5608
% of Volume	56
Denied Entry Before	0
Denied Entry After	41

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	11.8	343.4	92.8	48.2	29.4	43.1	152.0	160.0	40.7
Total Del/Veh (s)	34.8	1561.3	4.2	402.0	78.1	65.9	79.2	2059.4	260.0
Vehicles Entered	502	21	1	454	53	247	3	21	1302
Vehicles Exited	504	21	1	443	51	246	3	7	1276
Hourly Exit Rate	504	21	1	443	51	246	3	7	1276
Input Volume	757	1111	28	770	100	435	3	24	3228
% of Volume	67	2	4	58	51	57	100	29	40
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	2	5	0	9	1	5	0	3	25

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	1.4	2.0	494.9	530.5	0.1	2181.0	2217.5	1003.2
Total Del/Veh (s)	50.2	18.4	1949.7	1220.1	1489.2	2015.5	3326.1	299.9
Vehicles Entered	188	584	12	1	7	1	4	797
Vehicles Exited	183	583	12	0	4	2	4	788
Hourly Exit Rate	183	583	12	0	4	2	4	788
Input Volume	293	897	726	47	6	110	407	2487
% of Volume	62	65	2	0	64	2	1	32
Denied Entry Before	0	0	0	0	0	30	115	145
Denied Entry After	0	1	5	0	0	141	509	656

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.0	1625.6		1478.2	1481.8	610.5
Total Del/Veh (s)	20.0	2.2	3212.2	4464.5	3130.7	3444.9	950.7
Vehicles Entered	232	334	6	0	1	36	609
Vehicles Exited	227	334	6	0	0	6	573
Hourly Exit Rate	227	334	6	0	0	6	573
Input Volume	406	574	425	11	12	356	1784
% of Volume	56	58	1	0	0	2	32
Denied Entry Before	0	0	0	0	0	1	1
Denied Entry After	0	0	15	0	11	323	349

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	6.0	0.0	5.2	5.5	3.7	0.0	0.0	2.7
Total Del/Veh (s)	166.1	40.7	92.8	102.9	41.2	24.9	15.4	61.7
Vehicles Entered	269	6	462	781	225	631	1044	3418
Vehicles Exited	260	5	456	781	221	627	1041	3391
Hourly Exit Rate	260	5	456	781	221	627	1041	3391
Input Volume	379	11	653	1304	389	1040	1732	5508
% of Volume	69	44	70	60	57	60	60	62
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	3	1	0	0	4

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	34.1	21.9	25.7	14.1	16.7	17.7	1.0	0.4	0.0	0.0	0.0	0.0
Total Del/Veh (s)	267.7	48.1	34.8	827.7	813.5	843.9	86.4	68.6	65.3	67.4	22.7	7.9
Vehicles Entered	140	32	23	12	122	240	55	692	7	112	770	432
Vehicles Exited	139	32	24	7	78	150	55	691	7	109	762	432
Hourly Exit Rate	139	32	24	7	78	150	55	691	7	109	762	432
Input Volume	482	122	81	13	127	247	75	938	9	180	1252	692
% of Volume	29	26	30	53	61	61	73	74	76	61	61	62
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	1	0	0	0	4	7	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	4.9
Total Del/Veh (s)	175.0
Vehicles Entered	2637
Vehicles Exited	2486
Hourly Exit Rate	2486
Input Volume	4219
% of Volume	59
Denied Entry Before	0
Denied Entry After	12

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	6.5	0.2	0.1	0.1	0.1	0.8
Total Del/Veh (s)	60.9	378.7	5.4	1.5	316.6	331.9	95.1
Vehicles Entered	4	91	359	249	110	8	821
Vehicles Exited	4	90	359	250	97	7	807
Hourly Exit Rate	4	90	359	250	97	7	807
Input Volume	24	566	563	373	112	7	1646
% of Volume	17	16	64	67	87	97	49
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	243.0	0.0	0.0	1694.7	1659.1	854.2
Total Del/Veh (s)	903.9	901.8	11.9	8.7	1775.8	2007.5	457.1
Vehicles Entered	1	49	222	125	48	2	447
Vehicles Exited	1	48	223	125	46	2	445
Hourly Exit Rate	1	48	223	125	46	2	445
Input Volume	4	251	338	192	345	13	1144
% of Volume	25	19	66	65	13	15	39
Denied Entry Before	0	0	0	0	30	1	31
Denied Entry After	0	7	0	0	332	13	352

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	12.2	2.3	0.0	0.0	1054.3	1029.4	333.9
Total Del/Veh (s)	1464.8	1293.1	2.4	2.2	2604.6	2496.2	760.3
Vehicles Entered	3	100	209	32	39	4	387
Vehicles Exited	1	37	210	33	13	1	295
Hourly Exit Rate	1	37	210	33	13	1	295
Input Volume	4	100	318	50	148	14	634
% of Volume	27	37	66	66	9	7	47
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	1	0	0	107	10	118

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		8.5	0.0	0.2	0.0	4.3
Total Del/Veh (s)	2540.4	1624.4	2221.1		458.4	413.9	3.0	1.0	355.0
Vehicles Entered	4	8	67	0	832	2	799	2	1714
Vehicles Exited	0	1	2	0	751	2	803	2	1561
Hourly Exit Rate	0	1	2	0	751	2	803	2	1561
Input Volume	4	8	65	1	954	3	1333	4	2372
% of Volume	0	13	3	0	79	67	60	50	66
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	3	0	0	0	3

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	424.7	1.0	1.8	211.2
Vehicles Entered	749	4	848	1601
Vehicles Exited	726	4	848	1578
Hourly Exit Rate	726	4	848	1578
Input Volume	1032	5	1429	2466
% of Volume	70	80	59	64
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	4.5	3.2	1.1	2.3
Total Del/Veh (s)	14.3	135.7	93.0	2.2	55.0
Vehicles Entered	172	974	262	1570	2978
Vehicles Exited	170	941	259	1568	2938
Hourly Exit Rate	170	941	259	1568	2938
Input Volume	298	1538	410	2564	4810
% of Volume	57	61	63	61	61
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	3	1	2	6

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	7.2	7.2
Total Del/Veh (s)	33.7	33.7
Vehicles Entered	701	701
Vehicles Exited	701	701
Hourly Exit Rate	701	701
Input Volume	1186	1186
% of Volume	59	59
Denied Entry Before	0	0
Denied Entry After	1	1

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	71.7	0.0	39.0
Total Del/Veh (s)	103.8	24.3	65.4
Vehicles Entered	889	802	1691
Vehicles Exited	833	797	1630
Hourly Exit Rate	833	797	1630
Input Volume	953	1337	2290
% of Volume	87	60	71
Denied Entry Before	0	0	0
Denied Entry After	70	0	70

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	11.1	11.1
Vehicles Entered	679	679
Vehicles Exited	679	679
Hourly Exit Rate	679	679
Input Volume	1154	1154
% of Volume	59	59
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.4	0.4
Total Del/Veh (s)	23.0	23.0
Vehicles Entered	933	933
Vehicles Exited	936	936
Hourly Exit Rate	936	936
Input Volume	1511	1511
% of Volume	62	62
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.5	6.6	6.6	682.8	723.4	751.2	0.1	0.0	0.0	10.0	14.3	15.4
Total Del/Veh (s)	99.9	121.6	115.7	406.3	388.6	341.8	79.8	13.7	11.3	353.8	312.2	276.9
Vehicles Entered	10	66	49	109	66	10	9	692	21	16	1065	10
Vehicles Exited	10	66	49	108	63	10	9	689	20	14	927	9
Hourly Exit Rate	10	66	49	108	63	10	9	689	20	14	927	9
Input Volume	11	67	48	166	106	14	20	1322	34	15	1098	9
% of Volume	91	98	102	65	60	71	45	52	58	93	84	100
Denied Entry Before	0	0	0	1	1	0	0	0	0	0	0	0
Denied Entry After	0	1	1	58	37	5	0	0	0	0	30	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	96.0
Total Del/Veh (s)	210.5
Vehicles Entered	2123
Vehicles Exited	1974
Hourly Exit Rate	1974
Input Volume	2911
% of Volume	68
Denied Entry Before	2
Denied Entry After	132

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	768.2	771.8	771.1
Total Del/Veh (s)	260.0	360.3	342.0
Vehicles Entered	174	764	938
Vehicles Exited	174	747	921
Hourly Exit Rate	174	747	921
Input Volume	298	1284	1582
% of Volume	58	58	58
Denied Entry Before	7	24	31
Denied Entry After	123	549	672

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	3251.3	0.8	498.4
Vehicles Entered	6	342	348
Vehicles Exited	6	338	344
Hourly Exit Rate	6	338	344
Input Volume	422	593	1015
% of Volume	1	57	34
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	594.4
Total Del/Veh (s)	850.8
Vehicles Entered	6747
Vehicles Exited	5683
Hourly Exit Rate	5683
Input Volume	66424
% of Volume	9
Denied Entry Before	272
Denied Entry After	3270

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	42	2892.1	3985.7	0.5	1
O Connor St	44	3251.3	3252.7	0.1	0
Total		6143.5	7238.3	0.6	0

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	104.9	123.7	0.1	2
US 101 NB Loop On-Ra	15	130.1	161.4	0.2	5
Donohoe Street	3	31.9	51.6	0.1	5
Bell St	36	14.5	38.7	0.2	19
Total		281.4	375.5	0.5	6

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bell St	36	312.2	378.3	0.5	5
Donohoe Street	3	201.6	326.5	0.2	3
US 101 NB Loop Off-R	15	2.2	8.7	0.1	27
US 101 SB Off-Ramp	7	15.3	36.2	0.2	21
Woodland Avenue	8	26.0	37.7	0.1	8
Total		557.3	787.3	1.0	6

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	275	2330	124	742
Average Queue (ft)	273	2297	52	683
95th Queue (ft)	299	2318	103	829
Link Distance (ft)		2273	202	694
Upstream Blk Time (%)		100		82
Queuing Penalty (veh)		0		0
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	20	93		
Queuing Penalty (veh)	86	413		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	LT	TR	L	TR	LTR
Maximum Queue (ft)	83	152	362	376	460
Average Queue (ft)	13	67	329	323	383
95th Queue (ft)	72	127	407	440	551
Link Distance (ft)	202	202	316	316	453
Upstream Blk Time (%)	2	2	54	30	58
Queuing Penalty (veh)	12	15	257	141	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	67	153	327	236	319	315	268	182	235	214	246	87
Average Queue (ft)	13	58	210	30	289	274	88	95	193	104	201	71
95th Queue (ft)	58	175	322	161	311	312	224	176	283	236	301	111
Link Distance (ft)		316	316		249	249	249	87	87	87	87	
Upstream Blk Time (%)		4	3	1	92	70	0	56	85	2	33	7
Queuing Penalty (veh)		14	11	0	582	445	2	213	324	8	127	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		5		1	98						33	7
Queuing Penalty (veh)		1		4	306						208	24

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	259	1030	1037	125
Average Queue (ft)	74	999	1000	70
95th Queue (ft)	236	1017	1020	157
Link Distance (ft)		988	988	
Upstream Blk Time (%)		35	34	
Queuing Penalty (veh)		229	220	
Storage Bay Dist (ft)	235			100
Storage Blk Time (%)	1	68	64	2
Queuing Penalty (veh)	5	18	72	10

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	261	216	295	264	37	783	773	760	420	256	254	107
Average Queue (ft)	141	74	275	160	1	735	733	209	171	183	204	21
95th Queue (ft)	266	171	291	339	28	898	851	716	414	301	270	176
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	9	1	99	33	0	73	79	5		34	54	3
Queuing Penalty (veh)	34	4	376	127	0	312	339	20		219	345	0
Storage Bay Dist (ft)									500			
Storage Blk Time (%)								4	6			
Queuing Penalty (veh)								18	5			

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	498
Average Queue (ft)	362
95th Queue (ft)	590
Link Distance (ft)	525
Upstream Blk Time (%)	24
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	LT	R
Maximum Queue (ft)	150	281	237	172	220	235	112	63	820	948
Average Queue (ft)	122	192	99	37	203	172	63	14	667	939
95th Queue (ft)	191	323	196	115	228	311	129	55	1307	954
Link Distance (ft)		258	258	258	185	185	497	497	939	939
Upstream Blk Time (%)		11	0	0	93	72			54	95
Queuing Penalty (veh)		44	0	0	358	276			0	0
Storage Bay Dist (ft)	100									
Storage Blk Time (%)	23	13								
Queuing Penalty (veh)	66	40								

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	206	26	21	2	556	558	2219	2219
Average Queue (ft)	140	2	1	0	547	545	2169	2200
95th Queue (ft)	225	13	9	3	561	557	2402	2259
Link Distance (ft)	185	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	7				100	100	81	87
Queuing Penalty (veh)	18				211	211	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	267	314	321	384	386	332	179	196	220	284	326
Average Queue (ft)	223	289	286	356	357	98	83	100	124	112	156
95th Queue (ft)	298	303	334	383	383	235	161	168	204	437	462
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	4	83	68	43	54	1				3	3
Queuing Penalty (veh)	14	287	233	238	300	8				35	36
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)						0	0	0	0	3	
Queuing Penalty (veh)						0	0	1	2	26	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	170	175	140	4134	125	148	277	281	236	220	270	277
Average Queue (ft)	133	157	31	2326	122	73	220	255	213	101	151	168
95th Queue (ft)	203	168	111	4742	134	164	292	294	238	187	267	274
Link Distance (ft)	153	153	153	5700			197	197	143		349	349
Upstream Blk Time (%)	51	90	2	4			29	60	59		3	3
Queuing Penalty (veh)	116	203	5	0			149	303	600		20	20
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				15	84	2	53			0	4	
Queuing Penalty (veh)				37	118	8	40			1	7	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	179
Average Queue (ft)	76
95th Queue (ft)	169
Link Distance (ft)	349
Upstream Blk Time (%)	1
Queuing Penalty (veh)	9
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	190	220	106	102	65	403	496
Average Queue (ft)	62	208	34	36	16	95	221
95th Queue (ft)	180	215	91	87	47	308	545
Link Distance (ft)	207	207	153	153		1048	1048
Upstream Blk Time (%)	5	90	1	2			
Queuing Penalty (veh)	15	266	6	8			
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				0	0		
Queuing Penalty (veh)				0	0		

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	383	125	99	1068
Average Queue (ft)	376	57	44	1046
95th Queue (ft)	380	118	83	1064
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	93	2	0	99
Queuing Penalty (veh)	231	6	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	1695	3	1206
Average Queue (ft)	938	0	1093
95th Queue (ft)	1967	4	1478
Link Distance (ft)	2311	376	1194
Upstream Blk Time (%)	2		77
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	B13	B13
Directions Served	LTR	LTR	LTR	TR	T	
Maximum Queue (ft)	286	1919	4315	194	295	293
Average Queue (ft)	160	1222	3479	28	191	158
95th Queue (ft)	363	2046	5256	137	310	313
Link Distance (ft)	1080	2561	4339	143	197	197
Upstream Blk Time (%)			11	4	12	7
Queuing Penalty (veh)			104	55	76	49
Storage Bay Dist (ft)						
Storage Blk Time (%)				4		
Queuing Penalty (veh)				0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17
Directions Served	R	R	T
Maximum Queue (ft)	1367	1371	4295
Average Queue (ft)	1316	1315	2937
95th Queue (ft)	1483	1480	5548
Link Distance (ft)	1279	1279	4248
Upstream Blk Time (%)	58	58	45
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	202	71	1024	1041	92	82
Average Queue (ft)	67	5	754	798	16	16
95th Queue (ft)	164	145	1345	1376	81	64
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)	0		9	13	2	2
Queuing Penalty (veh)	0		85	126	28	29
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	392
Average Queue (ft)	254
95th Queue (ft)	422
Link Distance (ft)	375
Upstream Blk Time (%)	2
Queuing Penalty (veh)	17
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	1765	79
Average Queue (ft)	711	7
95th Queue (ft)	2312	40
Link Distance (ft)	2327	4339
Upstream Blk Time (%)	20	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	121
Average Queue (ft)	88
95th Queue (ft)	111
Link Distance (ft)	18
Upstream Blk Time (%)	59
Queuing Penalty (veh)	679
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	334	344
Average Queue (ft)	132	146
95th Queue (ft)	284	299
Link Distance (ft)	667	667
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	364	568	73	280	292	149	2245	2224
Average Queue (ft)	154	541	12	116	132	38	1363	1347
95th Queue (ft)	343	575	49	246	263	132	2517	2491
Link Distance (ft)	506	528		988	988		2506	2506
Upstream Blk Time (%)	2	94					10	9
Queuing Penalty (veh)	0	0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)				6		0	81	
Queuing Penalty (veh)				1		0	12	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	1497	1503
Average Queue (ft)	1411	1420
95th Queue (ft)	1806	1795
Link Distance (ft)	1451	1451
Upstream Blk Time (%)	62	89
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB	B42	B42
Directions Served	T	T	T	T
Maximum Queue (ft)	627	628	2497	2492
Average Queue (ft)	621	620	2084	2072
95th Queue (ft)	632	633	3084	3077
Link Distance (ft)	560	560	2483	2483
Upstream Blk Time (%)	100	100	56	54
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 11376

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	26.2	25.1	3.4	3.9	3.2	3.4	10.0
Total Del/Veh (s)	295.0	182.3	21.1	17.5	135.0	138.9	83.0
Vehicles Entered	16	311	514	136	94	25	1096
Vehicles Exited	14	285	515	136	91	23	1064
Hourly Exit Rate	14	285	515	136	91	23	1064
Input Volume	16	315	802	213	95	25	1467
% of Volume	86	90	64	64	96	91	73
Denied Entry Before	0	0	1	0	0	0	1
Denied Entry After	1	8	0	0	0	0	9

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	7.7	2.5	0.5	0.2	0.1	0.1	1170.8	1229.1	1299.0	102.5
Total Del/Veh (s)	137.1	71.8	2.8	22.3	8.1	6.7	1392.2	1303.9	1220.5	69.1
Vehicles Entered	3	288	92	478	644	19	15	12	10	1561
Vehicles Exited	3	284	92	475	645	18	13	11	10	1551
Hourly Exit Rate	3	284	92	475	645	18	13	11	10	1551
Input Volume	3	316	99	741	991	26	50	44	39	2309
% of Volume	100	90	93	64	65	69	26	25	26	67
Denied Entry Before	0	0	0	0	0	0	2	1	2	5
Denied Entry After	0	0	0	0	0	0	38	31	32	101

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	19.9	41.8	29.1	0.0	0.0	0.0	0.2	0.2	0.5	16.9	12.8	10.7
Total Del/Veh (s)	189.9	441.5	8.9	63.2	65.3	21.4	78.8	27.2	32.3	355.2	201.9	91.2
Vehicles Entered	28	95	168	341	594	453	289	568	604	44	689	222
Vehicles Exited	27	91	168	341	594	452	290	568	602	43	694	224
Hourly Exit Rate	27	91	168	341	594	452	290	568	602	43	694	224
Input Volume	39	122	205	467	935	704	458	909	983	65	1050	332
% of Volume	70	75	82	73	64	64	63	62	61	66	66	68
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	2	3	0	0	0	0	0	0	0	4	1

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	5.4
Total Del/Veh (s)	88.3
Vehicles Entered	4095
Vehicles Exited	4094
Hourly Exit Rate	4094
Input Volume	6269
% of Volume	65
Denied Entry Before	0
Denied Entry After	10

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	10.5	0.0	10.6	0.1	0.2	4.0
Total Del/Veh (s)	43.6	48.3	7.8	222.4	80.2	193.6	228.9	131.2	112.3
Vehicles Entered	729	759	14	553	16	431	9	80	2591
Vehicles Exited	731	759	14	548	16	428	9	80	2585
Hourly Exit Rate	731	759	14	548	16	428	9	80	2585
Input Volume	1162	1049	21	977	33	776	10	80	4108
% of Volume	63	72	66	56	48	55	90	100	63
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	2	0	1	0	0	3

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.0
Total Del/Veh (s)	57.1	21.9	74.5	51.2	91.1	70.6	15.4	63.3	38.2	47.2
Vehicles Entered	332	836	503	98	94	16	27	87	176	2169
Vehicles Exited	331	836	505	98	93	16	27	87	176	2169
Hourly Exit Rate	331	836	505	98	93	16	27	87	176	2169
Input Volume	570	1378	803	155	93	14	25	88	173	3300
% of Volume	58	61	63	63	100	112	107	99	102	66
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	10.3	24.6	138.4	126.1	27.4
Total Del/Veh (s)	48.4	12.9	352.4	339.8	431.8	1145.8	328.6
Vehicles Entered	339	611	396	21	7	280	1654
Vehicles Exited	340	611	397	20	6	205	1579
Hourly Exit Rate	340	611	397	20	6	205	1579
Input Volume	536	956	636	33	9	325	2494
% of Volume	63	64	62	60	67	63	63
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	1	44	46

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.5	0.0	1.3	0.2	0.0	0.0	0.0	0.3
Total Del/Veh (s)	104.7	47.4	87.7	66.1	11.1	46.0	7.9	52.5
Vehicles Entered	277	4	622	950	228	759	806	3646
Vehicles Exited	276	4	622	951	228	759	806	3646
Hourly Exit Rate	276	4	622	951	228	759	806	3646
Input Volume	434	4	978	1560	377	1089	1275	5718
% of Volume	64	107	64	61	60	70	63	64
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	2.1	0.8	0.7	6.1	4.4	7.8	0.5	2.1	0.9	0.0	0.0	0.0
Total Del/Veh (s)	86.7	45.1	31.2	955.7	968.7	961.6	113.9	75.3	84.9	78.7	35.0	7.5
Vehicles Entered	445	65	47	13	72	354	26	504	9	178	570	334
Vehicles Exited	445	65	46	9	46	229	26	505	9	178	568	335
Hourly Exit Rate	445	65	46	9	46	229	26	505	9	178	568	335
Input Volume	665	104	73	15	72	356	47	924	16	279	895	535
% of Volume	67	62	63	60	64	64	55	55	56	64	63	63
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	6	0	1	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	2.0
Total Del/Veh (s)	225.3
Vehicles Entered	2617
Vehicles Exited	2461
Hourly Exit Rate	2461
Input Volume	3982
% of Volume	62
Denied Entry Before	0
Denied Entry After	8

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	1.2	1.7	0.0	0.0	35.9	28.4	12.8
Total Del/Veh (s)	98.8	167.2	10.1	2.6	415.3	508.9	192.9
Vehicles Entered	6	247	355	60	331	17	1016
Vehicles Exited	5	247	356	60	299	14	981
Hourly Exit Rate	5	247	356	60	299	14	981
Input Volume	9	492	571	92	342	16	1522
% of Volume	54	50	62	65	87	86	64
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	8	0	8

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	46.1	58.7	0.0	0.0	542.8	539.9	186.6
Total Del/Veh (s)	356.5	391.4	10.0	7.3	832.0	813.7	300.9
Vehicles Entered	4	128	203	169	150	9	663
Vehicles Exited	5	126	202	169	127	8	637
Hourly Exit Rate	5	126	202	169	127	8	637
Input Volume	11	272	314	269	233	13	1112
% of Volume	45	46	64	63	54	60	57
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	4	0	0	79	6	89

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	3.3	0.0	0.0	183.6	150.2	35.9
Total Del/Veh (s)	589.9	1044.0	2.7	2.4	1435.3	1430.8	663.5
Vehicles Entered	1	190	171	45	67	10	484
Vehicles Exited	0	98	170	45	33	5	351
Hourly Exit Rate	0	98	170	45	33	5	351
Input Volume	1	188	261	70	87	12	619
% of Volume	0	52	65	64	38	43	57
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	2	0	0	18	3	23

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		18.5	0.0	0.1	0.2	1.0	8.2
Total Del/Veh (s)	2503.0	1847.2	2258.4	428.8	808.2	898.0	93.8	2.1	5.5	557.5
Vehicles Entered	3	9	66	0	550	2	7	623	3	1263
Vehicles Exited	0	2	2	0	526	2	7	622	3	1164
Hourly Exit Rate	0	2	2	0	526	2	7	622	3	1164
Input Volume	4	8	65	1	910	3	10	976	4	1982
% of Volume	0	26	3	0	58	67	68	64	75	59
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	4	0	0	0	0	4

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	343.0	1.6	3.4	174.3
Vehicles Entered	901	2	989	1892
Vehicles Exited	899	2	989	1890
Hourly Exit Rate	899	2	989	1890
Input Volume	1412	4	1466	2882
% of Volume	64	53	67	66
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	2.1	0.6	0.0	1.0
Total Del/Veh (s)	3.8	93.3	111.4	1.5	49.4
Vehicles Entered	358	1455	123	1208	3144
Vehicles Exited	359	1452	122	1208	3141
Hourly Exit Rate	359	1452	122	1208	3141
Input Volume	644	2345	195	1723	4907
% of Volume	56	62	62	70	64
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.3	0.3
Total Del/Veh (s)	21.0	21.0
Vehicles Entered	594	594
Vehicles Exited	597	597
Hourly Exit Rate	597	597
Input Volume	902	902
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	392.7	0.1	230.7
Total Del/Veh (s)	403.9	23.4	211.4
Vehicles Entered	627	633	1260
Vehicles Exited	552	635	1187
Hourly Exit Rate	552	635	1187
Input Volume	909	985	1894
% of Volume	61	64	63
Denied Entry Before	0	0	0
Denied Entry After	274	0	274

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.0	9.0
Vehicles Entered	584	584
Vehicles Exited	585	585
Hourly Exit Rate	585	585
Input Volume	884	884
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	7.4	7.4
Total Del/Veh (s)	50.7	50.7
Vehicles Entered	1074	1074
Vehicles Exited	1076	1076
Hourly Exit Rate	1076	1076
Input Volume	1550	1550
% of Volume	69	69
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.2	440.4	450.0	438.1	0.0	0.0	0.0	648.1	644.9	658.1
Total Del/Veh (s)	64.0	61.9	49.0	252.8	257.6	247.0	75.6	10.4	8.8	783.7	626.9	535.3
Vehicles Entered	31	111	22	118	141	30	128	830	92	35	826	27
Vehicles Exited	31	111	22	119	140	29	129	832	92	33	811	26
Hourly Exit Rate	31	111	22	119	140	29	129	832	92	33	811	26
Input Volume	33	112	20	140	167	33	194	1314	141	55	1279	40
% of Volume	93	99	110	85	84	87	66	63	65	60	63	65
Denied Entry Before	0	0	0	9	10	2	0	0	0	1	18	0
Denied Entry After	0	0	0	29	35	7	0	0	0	19	452	15

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	355.1
Total Del/Veh (s)	300.3
Vehicles Entered	2391
Vehicles Exited	2375
Hourly Exit Rate	2375
Input Volume	3528
% of Volume	67
Denied Entry Before	40
Denied Entry After	557

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	878.3	882.7	881.5
Total Del/Veh (s)	615.7	647.2	639.4
Vehicles Entered	362	998	1360
Vehicles Exited	358	996	1354
Hourly Exit Rate	358	996	1354
Input Volume	644	1776	2420
% of Volume	56	56	56
Denied Entry Before	25	62	87
Denied Entry After	302	835	1137

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	394.5	2.0	170.7
Vehicles Entered	422	622	1044
Vehicles Exited	415	622	1037
Hourly Exit Rate	415	622	1037
Input Volume	666	969	1634
% of Volume	62	64	63
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	16.6	21.2	19.7
Vehicles Entered	241	524	765
Vehicles Exited	240	526	766
Hourly Exit Rate	240	526	766
Input Volume	239	808	1047
% of Volume	101	65	73
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	430.3
Total Del/Veh (s)	836.2
Vehicles Entered	7868
Vehicles Exited	6859
Hourly Exit Rate	6859
Input Volume	73805
% of Volume	9
Denied Entry Before	134
Denied Entry After	2679

Arterial Level of Service: EB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	61	16.6	48.3	0.3	20
Euclid Ave	1	182.3	246.7	0.4	6
US 101 NB On-Ramp	2	71.6	80.7	0.1	2
University Avenue	3	444.9	492.5	0.1	1
US 101 NB Off Ramp/C	4	39.4	47.5	0.1	5
	5	26.1	34.1	0.1	7
Donohoe Street	6	44.1	51.7	0.1	4
Total		825.0	1001.6	1.0	4

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Donohoe Street	6	1145.8	1298.7	0.4	1
Cooley Ave	5	61.3	69.5	0.1	3
	4	44.9	52.8	0.1	5
University Avenue	3	60.7	68.6	0.1	4
	2	6.3	16.0	0.1	18
Euclid Ave	1	21.2	30.3	0.1	7
	61	21.4	61.2	0.4	23
Total		1361.6	1597.0	1.1	3

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	63.8	76.1	0.1	4
US 101 NB Loop On-Ra	15	89.2	117.3	0.2	7
Donohoe Street	3	27.2	32.6	0.1	6
Bell St	36	4.6	28.9	0.2	25
Total		184.8	255.0	0.5	8

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bell St	36	626.9	1496.8	0.5	3
Donohoe Street	3	197.1	233.1	0.2	3
US 101 NB Loop Off-R	15	1.8	7.0	0.1	28
US 101 SB Off-Ramp	7	8.2	29.1	0.2	26
Woodland Avenue	8	35.8	47.5	0.1	6
Total		869.9	1813.5	1.0	4

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	236	889	217	338
Average Queue (ft)	151	411	178	148
95th Queue (ft)	324	1247	238	433
Link Distance (ft)		2005	202	694
Upstream Blk Time (%)		1	5	2
Queuing Penalty (veh)		2	50	0
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	30	15		
Queuing Penalty (veh)	47	25		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	LT	TR	L	TR	LTR
Maximum Queue (ft)	207	89	326	320	464
Average Queue (ft)	150	13	174	99	436
95th Queue (ft)	280	63	328	278	552
Link Distance (ft)	202	202	316	316	453
Upstream Blk Time (%)	48	1	1	0	89
Queuing Penalty (veh)	98	2	11	3	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	260	344	139	249	313	298	265	99	235	239	264	87
Average Queue (ft)	107	308	36	204	270	246	120	34	176	170	234	85
95th Queue (ft)	302	401	94	327	299	320	249	92	245	299	261	95
Link Distance (ft)		316	316		249	249	249	87	87	87	87	
Upstream Blk Time (%)		75		7	37	28	1	2	61	18	44	37
Queuing Penalty (veh)		134		0	263	197	8	13	356	105	260	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		89		19	45						44	37
Queuing Penalty (veh)		34		134	104						436	167

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	260	1023	1024	125
Average Queue (ft)	122	1002	944	101
95th Queue (ft)	295	1016	1138	160
Link Distance (ft)		988	988	
Upstream Blk Time (%)		27	9	
Queuing Penalty (veh)		191	63	
Storage Bay Dist (ft)	235			100
Storage Blk Time (%)	1	72	42	10
Queuing Penalty (veh)	5	47	138	52

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	278	277	297	296	237	778	744	784	600	343	377	73
Average Queue (ft)	250	144	254	181	44	690	629	638	566	236	344	20
95th Queue (ft)	304	279	324	331	148	955	950	1080	717	459	368	71
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	34	1	31	8	0	60	27	56		48	78	
Queuing Penalty (veh)	197	7	109	28	1	353	161	333		430	696	
Storage Bay Dist (ft)									500			
Storage Blk Time (%)								1	69			
Queuing Penalty (veh)								8	16			

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	255
Average Queue (ft)	112
95th Queue (ft)	242
Link Distance (ft)	525
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	R	LT	R
Maximum Queue (ft)	150	284	239	163	216	236	170	149	63	175	312
Average Queue (ft)	147	268	91	34	191	196	61	54	19	71	104
95th Queue (ft)	159	294	191	106	206	220	136	118	50	141	238
Link Distance (ft)		258	258	258	185	185	497	497	497	939	939
Upstream Blk Time (%)		40	0	0	55	53					
Queuing Penalty (veh)		261	1	0	263	251					
Storage Bay Dist (ft)	100										
Storage Blk Time (%)	48	25									
Queuing Penalty (veh)	222	145									

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	209	175	210	141	581	588	2243	2234
Average Queue (ft)	192	81	106	30	559	560	1614	2010
95th Queue (ft)	231	160	186	95	572	575	2722	2558
Link Distance (ft)	185	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	30	0	1	0	96	98	37	54
Queuing Penalty (veh)	112	0	2	0	321	326	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	272	315	323	381	387	301	120	360	376	361	232
Average Queue (ft)	217	289	291	352	358	50	36	204	227	74	93
95th Queue (ft)	302	304	312	396	381	176	91	338	350	299	200
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	1	76	84	26	37	1				0	
Queuing Penalty (veh)	7	357	395	164	240	7				1	
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)								1	2	0	
Queuing Penalty (veh)								8	13	0	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	190	192	146	5074	125	132	219	230	283	303	333	326
Average Queue (ft)	161	162	52	3302	124	37	136	203	262	174	161	166
95th Queue (ft)	184	178	134	5503	127	100	231	241	296	281	283	280
Link Distance (ft)	156	156	156	5698			144	144	202		349	349
Upstream Blk Time (%)	69	77	2	5		0	25	71	69		1	0
Queuing Penalty (veh)	191	214	6	0		0	119	348	673		4	2
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				3	92	0	35			4	3	
Queuing Penalty (veh)				12	80	1	16			16	7	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	183
Average Queue (ft)	70
95th Queue (ft)	145
Link Distance (ft)	349
Upstream Blk Time (%)	0
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	214	223	144	151	75	997	1016
Average Queue (ft)	130	209	56	54	11	636	727
95th Queue (ft)	238	218	118	113	48	1156	1193
Link Distance (ft)	207	207	156	156		1048	1048
Upstream Blk Time (%)	11	76	0	1		9	18
Queuing Penalty (veh)	28	188	1	3		0	0
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				2	0		
Queuing Penalty (veh)				1	0		

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	386	140	139	1080
Average Queue (ft)	375	62	61	972
95th Queue (ft)	410	111	109	1297
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	81	0	0	78
Queuing Penalty (veh)	223	1	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	2419	2	1147
Average Queue (ft)	1384	0	788
95th Queue (ft)	2861	2	1386
Link Distance (ft)	3343	376	1194
Upstream Blk Time (%)	2		29
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	302	1957	4367	67	242	263	257
Average Queue (ft)	185	1264	4302	9	22	177	140
95th Queue (ft)	417	2026	4659	40	134	301	284
Link Distance (ft)	1080	2561	4352		202	144	144
Upstream Blk Time (%)			38		1	12	6
Queuing Penalty (veh)			346		13	57	29
Storage Bay Dist (ft)				100			
Storage Blk Time (%)				0	1		
Queuing Penalty (veh)				1	0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17	NE	NE
Directions Served	R	R	T	R	R
Maximum Queue (ft)	1371	1362	8577	6	16
Average Queue (ft)	1343	1328	7516	0	0
95th Queue (ft)	1373	1374	10538	5	9
Link Distance (ft)	1279	1279	8523	237	237
Upstream Blk Time (%)	51	43	64		
Queuing Penalty (veh)	0	0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	191	1390	1069	1061	88	85
Average Queue (ft)	47	375	819	940	8	12
95th Queue (ft)	131	1423	1267	1256	45	49
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)	0		3	11	0	0
Queuing Penalty (veh)	0		37	134	1	1
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	344
Average Queue (ft)	180
95th Queue (ft)	311
Link Distance (ft)	375
Upstream Blk Time (%)	0
Queuing Penalty (veh)	3
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	2394	27
Average Queue (ft)	1937	1
95th Queue (ft)	3250	16
Link Distance (ft)	2340	4352
Upstream Blk Time (%)	70	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	117
Average Queue (ft)	83
95th Queue (ft)	100
Link Distance (ft)	18
Upstream Blk Time (%)	47
Queuing Penalty (veh)	417
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	625	645
Average Queue (ft)	319	338
95th Queue (ft)	577	594
Link Distance (ft)	667	667
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	1	2
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	263	576	149	261	242	150	2520	2519
Average Queue (ft)	133	545	114	111	115	97	2477	2477
95th Queue (ft)	233	578	168	231	207	204	2588	2592
Link Distance (ft)	507	528		988	988		2465	2465
Upstream Blk Time (%)		92					95	91
Queuing Penalty (veh)		0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)			13	2		0	94	
Queuing Penalty (veh)			84	4		2	52	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	4343	4343
Average Queue (ft)	4308	4309
95th Queue (ft)	4351	4354
Link Distance (ft)	4287	4287
Upstream Blk Time (%)	87	95
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB	B42	B42	SB	SB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	661	658	2394	2392	18	18
Average Queue (ft)	631	629	1506	1498	1	1
95th Queue (ft)	669	663	2837	2811	25	25
Link Distance (ft)	560	560	2483	2483	489	489
Upstream Blk Time (%)	97	98	22	21		
Queuing Penalty (veh)	0	0	0	0		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 61: Donohoe Street

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	211	256
Average Queue (ft)	83	137
95th Queue (ft)	156	241
Link Distance (ft)	1392	2005
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 11697

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	877.0	795.7	0.0	0.0	210.6	185.7	565.0
Total Del/Veh (s)	447.6	479.3	13.3	7.9	214.3	195.4	347.6
Vehicles Entered	6	576	67	22	419	5	1095
Vehicles Exited	6	575	67	22	414	5	1089
Hourly Exit Rate	6	575	67	22	414	5	1089
Input Volume	9	870	152	56	461	6	1554
% of Volume	69	66	44	39	90	80	70
Denied Entry Before	1	47	0	0	6	0	54
Denied Entry After	4	342	0	0	39	1	386

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.2	90.8	55.7	66.4	849.0	714.3	878.9	36.6
Total Del/Veh (s)	2.5	2.2	2.5	185.9	19.8	18.3	2860.5	2887.6	2688.7	80.5
Vehicles Entered	12	615	416	254	91	68	4	6	3	1469
Vehicles Exited	12	614	415	260	92	69	0	0	1	1463
Hourly Exit Rate	12	614	415	260	92	69	0	0	1	1463
Input Volume	17	812	553	603	216	163	8	10	6	2387
% of Volume	72	76	75	43	43	42	0	0	17	61
Denied Entry Before	0	0	0	2	0	0	0	0	0	2
Denied Entry After	0	0	0	10	3	2	4	5	4	28

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.5	0.5	37.4	1.2	3.0	37.3	18.4	21.6	133.9	93.6	81.6
Total Del/Veh (s)	67.7	69.2	25.3	106.1	295.6	22.2	500.2	33.2	16.3	244.0	201.5	187.6
Vehicles Entered	15	65	514	11	238	223	80	389	339	17	995	97
Vehicles Exited	15	64	510	10	235	225	77	392	339	20	1017	96
Hourly Exit Rate	15	64	510	10	235	225	77	392	339	20	1017	96
Input Volume	21	93	675	660	667	617	182	756	662	27	1248	117
% of Volume	71	69	76	2	35	36	42	52	51	74	82	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	1	2	2	1	30	3

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	41.6
Total Del/Veh (s)	130.3
Vehicles Entered	2983
Vehicles Exited	3000
Hourly Exit Rate	3000
Input Volume	5724
% of Volume	52
Denied Entry Before	0
Denied Entry After	39

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.1	367.4	4.0	47.8	42.8	34.6	25.3	38.0	33.8
Total Del/Veh (s)	34.7	1805.8	1.2	415.3	74.2	45.1	70.1	1974.0	264.5
Vehicles Entered	450	14	1	449	57	260	3	21	1255
Vehicles Exited	455	18	1	444	54	257	2	5	1236
Hourly Exit Rate	455	18	1	444	54	257	2	5	1236
Input Volume	800	1152	28	770	100	443	3	24	3320
% of Volume	57	2	4	58	54	58	67	21	37
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	6	0	9	1	4	0	2	22

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.8	1.0	701.3	166.6	0.1	2215.7	2199.4	1044.2
Total Del/Veh (s)	50.5	14.9	2343.4	1026.5	1889.5	1812.6	3302.4	304.6
Vehicles Entered	179	555	7	1	6	1	4	753
Vehicles Exited	174	554	8	1	2	1	4	744
Hourly Exit Rate	174	554	8	1	2	1	4	744
Input Volume	308	934	752	47	6	110	422	2579
% of Volume	56	59	1	2	32	1	1	29
Denied Entry Before	0	0	0	0	0	32	125	157
Denied Entry After	0	0	6	0	0	137	529	672

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	1956.7		1657.1	1683.8	729.2
Total Del/Veh (s)	13.5	2.2	3473.7	2483.1	3375.0	3513.5	999.7
Vehicles Entered	231	304	2	0	0	17	554
Vehicles Exited	227	303	2	0	0	5	537
Hourly Exit Rate	227	303	2	0	0	5	537
Input Volume	440	574	425	11	12	382	1844
% of Volume	52	53	0	0	0	1	29
Denied Entry Before	0	0	0	0	0	1	1
Denied Entry After	0	0	12	0	10	363	385

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	10.8	0.0	9.9	15.6	9.0	0.0	0.0	5.7
Total Del/Veh (s)	177.1	63.8	106.1	139.1	41.4	21.9	11.8	66.4
Vehicles Entered	238	5	419	619	168	636	1056	3141
Vehicles Exited	231	5	416	621	162	633	1046	3114
Hourly Exit Rate	231	5	416	621	162	633	1046	3114
Input Volume	379	11	665	1350	389	1047	1772	5614
% of Volume	61	44	63	46	42	60	59	55
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	1	0	1	7	1	0	0	10

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	116.4	89.3	128.5	117.3	75.3	74.0	0.0	1.2	0.0	0.0	0.1	0.2
Total Del/Veh (s)	444.2	38.0	23.8	1169.0	1389.4	1419.6	91.3	85.3	95.9	66.1	21.0	7.2
Vehicles Entered	83	16	10	10	107	228	43	588	5	114	759	419
Vehicles Exited	84	16	11	5	46	98	43	586	5	112	748	421
Hourly Exit Rate	84	16	11	5	46	98	43	586	5	112	748	421
Input Volume	508	123	81	13	127	262	75	942	9	194	1255	715
% of Volume	17	13	14	38	36	37	57	62	54	58	60	59
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	3	1	1	2	19	36	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	18.1
Total Del/Veh (s)	277.3
Vehicles Entered	2382
Vehicles Exited	2175
Hourly Exit Rate	2175
Input Volume	4305
% of Volume	51
Denied Entry Before	0
Denied Entry After	62

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	15.7	0.0	0.0	11.3	9.3	2.6
Total Del/Veh (s)	488.7	858.1	5.2	1.7	627.9	880.5	161.8
Vehicles Entered	1	30	337	218	108	7	701
Vehicles Exited	1	30	336	218	75	4	664
Hourly Exit Rate	1	30	336	218	75	4	664
Input Volume	24	592	587	373	112	7	1695
% of Volume	4	5	57	58	67	55	39
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	3	0	3

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	293.5	637.8	0.0	0.0	1905.2	1953.0	1030.3
Total Del/Veh (s)	1497.0	1826.4	7.3	4.4	2689.0	2495.8	549.5
Vehicles Entered	1	16	209	117	16	1	360
Vehicles Exited	0	16	211	118	15	1	361
Hourly Exit Rate	0	16	211	118	15	1	361
Input Volume	4	279	361	192	345	13	1194
% of Volume	0	6	58	61	4	8	30
Denied Entry Before	0	0	0	0	40	2	42
Denied Entry After	0	11	0	0	365	14	390

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	151.5	210.0	0.0	0.0	1346.4	1299.6	470.2
Total Del/Veh (s)	2043.3	2249.8	2.4	2.1	3063.6	3411.9	1086.6
Vehicles Entered	2	92	200	31	23	2	350
Vehicles Exited	0	12	200	31	5	1	249
Hourly Exit Rate	0	12	200	31	5	1	249
Input Volume	4	126	342	50	148	14	684
% of Volume	0	10	58	62	3	7	36
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	38	0	0	128	11	177

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		16.1	0.0	0.1	0.0	7.3
Total Del/Veh (s)	2368.4	1812.9	2314.8		615.9	833.6	3.3	1.2	436.2
Vehicles Entered	5	7	67	0	702	2	766	2	1551
Vehicles Exited	0	1	1	0	633	1	769	2	1407
Hourly Exit Rate	0	1	1	0	633	1	769	2	1407
Input Volume	4	8	65	1	958	3	1336	4	2379
% of Volume	0	13	2	0	66	33	58	50	59
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	5	0	0	0	5

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	476.0	0.8	1.7	233.4
Vehicles Entered	673	3	794	1470
Vehicles Exited	652	3	795	1450
Hourly Exit Rate	652	3	795	1450
Input Volume	1044	4	1436	2484
% of Volume	62	71	55	58
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	6.6	5.5	0.2	2.5
Total Del/Veh (s)	13.7	194.7	113.0	1.6	68.4
Vehicles Entered	171	818	218	1590	2797
Vehicles Exited	166	797	218	1588	2769
Hourly Exit Rate	166	797	218	1588	2769
Input Volume	298	1595	410	2613	4916
% of Volume	56	50	53	61	56
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	4	1	2	7

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	7.0	7.0
Total Del/Veh (s)	33.4	33.4
Vehicles Entered	709	709
Vehicles Exited	710	710
Hourly Exit Rate	710	710
Input Volume	1198	1198
% of Volume	59	59
Denied Entry Before	1	1
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	186.9	0.0	104.2
Total Del/Veh (s)	206.4	24.6	114.7
Vehicles Entered	781	769	1550
Vehicles Exited	704	775	1479
Hourly Exit Rate	704	775	1479
Input Volume	957	1340	2297
% of Volume	74	58	64
Denied Entry Before	0	0	0
Denied Entry After	187	0	187

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	11.0	11.0
Vehicles Entered	687	687
Vehicles Exited	688	688
Hourly Exit Rate	688	688
Input Volume	1166	1166
% of Volume	59	59
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	16.3	16.3
Vehicles Entered	878	878
Vehicles Exited	882	882
Hourly Exit Rate	882	882
Input Volume	1518	1518
% of Volume	58	58
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.3	0.2	0.3	792.7	777.4	736.8	0.1	0.0	0.0	33.1	33.2	36.0
Total Del/Veh (s)	94.9	98.7	105.5	393.8	392.3	366.9	79.9	13.2	12.2	438.1	386.4	370.8
Vehicles Entered	9	70	49	109	70	9	8	627	14	17	1070	8
Vehicles Exited	9	70	48	107	69	9	8	624	14	15	923	6
Hourly Exit Rate	9	70	48	107	69	9	8	624	14	15	923	6
Input Volume	11	67	48	166	106	14	20	1339	34	15	1116	9
% of Volume	82	104	99	64	65	64	40	47	41	100	83	67
Denied Entry Before	0	0	0	1	1	0	0	0	0	0	0	0
Denied Entry After	0	0	0	60	40	6	0	0	0	1	44	0

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	121.4
Total Del/Veh (s)	256.8
Vehicles Entered	2060
Vehicles Exited	1902
Hourly Exit Rate	1902
Input Volume	2945
% of Volume	65
Denied Entry Before	2
Denied Entry After	151

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	742.8	739.1	739.7
Total Del/Veh (s)	255.3	361.8	342.2
Vehicles Entered	175	771	946
Vehicles Exited	173	756	929
Hourly Exit Rate	173	756	929
Input Volume	298	1292	1590
% of Volume	58	59	58
Denied Entry Before	4	20	24
Denied Entry After	118	541	659

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	3429.2	0.7	538.2
Vehicles Entered	2	311	313
Vehicles Exited	2	307	309
Hourly Exit Rate	2	307	309
Input Volume	422	593	1015
% of Volume	0	52	30
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	641.9
Total Del/Veh (s)	950.1
Vehicles Entered	6476
Vehicles Exited	5376
Hourly Exit Rate	5376
Input Volume	67500
% of Volume	8
Denied Entry Before	283
Denied Entry After	3670

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	42	3008.4	4247.0	0.5	1
O Connor St	44	3429.2	3429.7	0.1	0
Total		6437.6	7676.7	0.6	0

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	138.2	169.0	0.1	2
US 101 NB Loop On-Ra	15	186.1	220.9	0.2	4
Donohoe Street	3	33.2	56.5	0.1	5
Bell St	36	14.3	38.4	0.2	19
Total		371.9	484.8	0.5	5

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bell St	36	386.4	469.9	0.5	4
Donohoe Street	3	200.6	325.0	0.2	3
US 101 NB Loop Off-R	15	1.7	6.9	0.1	30
US 101 SB Off-Ramp	7	11.0	31.8	0.2	24
Woodland Avenue	8	24.8	36.5	0.1	8
Total		624.6	870.1	1.0	5

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	275	2327	120	743
Average Queue (ft)	275	2296	49	690
95th Queue (ft)	279	2317	97	822
Link Distance (ft)		2273	202	694
Upstream Blk Time (%)		100		85
Queuing Penalty (veh)		0		0
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	20	93		
Queuing Penalty (veh)	86	414		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	LT	TR	L	TR	LTR
Maximum Queue (ft)	42	135	362	376	464
Average Queue (ft)	6	64	336	319	389
95th Queue (ft)	26	109	358	446	545
Link Distance (ft)	202	202	316	316	453
Upstream Blk Time (%)		1	56	31	63
Queuing Penalty (veh)		3	269	146	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	76	161	325	224	322	312	254	201	234	206	248	87
Average Queue (ft)	13	49	212	33	289	276	83	118	176	93	181	65
95th Queue (ft)	49	137	314	170	312	305	208	204	306	223	322	118
Link Distance (ft)		316	316		249	249	249	87	87	87	87	
Upstream Blk Time (%)		1	1	0	93	72	0	72	69	1	29	6
Queuing Penalty (veh)		2	4	0	600	465	1	284	271	3	115	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		2			98						29	6
Queuing Penalty (veh)		0			323						194	22

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	259	1033	1030	125
Average Queue (ft)	57	1000	1000	71
95th Queue (ft)	199	1018	1016	158
Link Distance (ft)		988	988	
Upstream Blk Time (%)		36	34	
Queuing Penalty (veh)		241	229	
Storage Bay Dist (ft)	235			100
Storage Blk Time (%)		68	64	3
Queuing Penalty (veh)		18	74	16

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	269	204	292	229	5	781	765	760	389	260	255	228
Average Queue (ft)	131	67	274	138	0	757	746	243	151	195	213	26
95th Queue (ft)	260	159	294	325	4	779	768	783	343	288	260	203
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	7	1	100	30		77	85	1		35	54	3
Queuing Penalty (veh)	28	3	390	120		333	368	4		225	346	0
Storage Bay Dist (ft)									500			
Storage Blk Time (%)								1	1			
Queuing Penalty (veh)								5	1			

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	489
Average Queue (ft)	335
95th Queue (ft)	576
Link Distance (ft)	525
Upstream Blk Time (%)	16
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	LT	R
Maximum Queue (ft)	150	280	214	158	224	211	111	40	850	950
Average Queue (ft)	121	171	85	25	211	146	63	8	686	939
95th Queue (ft)	181	310	171	89	246	288	137	37	1360	952
Link Distance (ft)		258	258	258	185	185	497	497	939	939
Upstream Blk Time (%)		7	0	0	100	57			66	100
Queuing Penalty (veh)		29	0	0	397	226			0	0
Storage Bay Dist (ft)	100									
Storage Blk Time (%)	23	7								
Queuing Penalty (veh)	69	23								

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	TR	L	R
Maximum Queue (ft)	206	35	30	555	550	2220	2220
Average Queue (ft)	130	2	2	551	546	2201	2213
95th Queue (ft)	224	18	15	563	557	2268	2242
Link Distance (ft)	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	2			100	100	97	99
Queuing Penalty (veh)	6			211	212	0	0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	255	314	318	376	382	317	158	178	243	457	481
Average Queue (ft)	211	288	282	354	358	80	61	97	124	99	142
95th Queue (ft)	311	305	329	369	373	231	139	158	194	344	379
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	3	85	69	52	65	3				1	1
Queuing Penalty (veh)	11	297	240	298	369	16				14	13
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)						0	0			1	
Queuing Penalty (veh)						0	0			15	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	175	176	92	5682	125	149	281	290	242	231	289	296
Average Queue (ft)	132	156	11	3601	120	58	214	254	214	100	149	165
95th Queue (ft)	203	165	54	6433	135	149	303	295	234	184	253	263
Link Distance (ft)	153	153	153	5700			197	197	143		349	349
Upstream Blk Time (%)	58	95	0	19			30	65	66		2	2
Queuing Penalty (veh)	138	223	1	0			153	331	671		14	16
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				8	92	1	51			0	3	
Queuing Penalty (veh)				19	130	3	38			1	6	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	174
Average Queue (ft)	74
95th Queue (ft)	162
Link Distance (ft)	349
Upstream Blk Time (%)	1
Queuing Penalty (veh)	8
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	123	215	112	98	55	668	821
Average Queue (ft)	28	207	33	34	12	224	391
95th Queue (ft)	106	212	90	79	40	631	875
Link Distance (ft)	207	207	153	153		1048	1048
Upstream Blk Time (%)	2	92	0	1		0	3
Queuing Penalty (veh)	6	283	1	6		0	0
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				0			
Queuing Penalty (veh)				0			

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	380	114	84	1057
Average Queue (ft)	376	51	41	1045
95th Queue (ft)	376	90	69	1059
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	98	0		100
Queuing Penalty (veh)	268	0		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	2321	3	1198
Average Queue (ft)	1639	0	1125
95th Queue (ft)	2789	3	1418
Link Distance (ft)	2311	376	1194
Upstream Blk Time (%)	36		74
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	B13	B13
Directions Served	LTR	LTR	LTR	TR	T	
Maximum Queue (ft)	299	1919	4352	205	294	282
Average Queue (ft)	173	1265	3878	25	183	149
95th Queue (ft)	348	2113	5140	130	313	308
Link Distance (ft)	1080	2561	4339	143	197	197
Upstream Blk Time (%)			23	5	11	8
Queuing Penalty (veh)			219	65	73	54
Storage Bay Dist (ft)						
Storage Blk Time (%)				5		
Queuing Penalty (veh)				0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17
Directions Served	R	R	T
Maximum Queue (ft)	1369	1367	4291
Average Queue (ft)	1321	1315	3124
95th Queue (ft)	1459	1455	5667
Link Distance (ft)	1279	1279	4248
Upstream Blk Time (%)	63	63	55
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	215	4	1054	1072	85	74
Average Queue (ft)	65	0	900	913	12	11
95th Queue (ft)	161	0	1321	1378	57	45
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)	0		20	24	1	1
Queuing Penalty (veh)	1		203	236	9	9
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	406
Average Queue (ft)	254
95th Queue (ft)	426
Link Distance (ft)	375
Upstream Blk Time (%)	2
Queuing Penalty (veh)	28
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	2325	82
Average Queue (ft)	1204	6
95th Queue (ft)	2967	39
Link Distance (ft)	2327	4339
Upstream Blk Time (%)	39	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	119
Average Queue (ft)	90
95th Queue (ft)	114
Link Distance (ft)	18
Upstream Blk Time (%)	60
Queuing Penalty (veh)	694
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	244	249
Average Queue (ft)	104	118
95th Queue (ft)	202	212
Link Distance (ft)	667	667
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	365	569	78	268	295	150	2501	2493
Average Queue (ft)	143	543	11	99	114	50	1687	1670
95th Queue (ft)	310	559	45	220	238	154	2890	2863
Link Distance (ft)	506	528		988	988		2506	2506
Upstream Blk Time (%)	0	96					25	23
Queuing Penalty (veh)	0	0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)				5		0	84	
Queuing Penalty (veh)				1		0	13	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	1502	1504
Average Queue (ft)	1448	1452
95th Queue (ft)	1644	1634
Link Distance (ft)	1451	1451
Upstream Blk Time (%)	64	92
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB	B42	B42
Directions Served	T	T	T	T
Maximum Queue (ft)	623	626	2497	2492
Average Queue (ft)	620	621	2124	2111
95th Queue (ft)	629	642	3079	3070
Link Distance (ft)	560	560	2483	2483
Upstream Blk Time (%)	90	100	62	57
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 11976

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	48.6	50.6	2.5	1.9	20.0	26.3	19.3
Total Del/Veh (s)	372.5	250.8	20.1	16.4	157.3	157.6	104.9
Vehicles Entered	15	303	505	133	91	29	1076
Vehicles Exited	13	263	506	133	85	28	1028
Hourly Exit Rate	13	263	506	133	85	28	1028
Input Volume	16	315	802	213	95	25	1467
% of Volume	80	83	63	62	89	111	70
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	1	18	0	0	2	1	22

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	6.3	1.5	0.2	0.1	0.0	1119.8	1169.9	1079.0	97.4
Total Del/Veh (s)	176.5	89.4	2.9	21.8	7.2	5.6	1418.4	1392.3	1271.1	68.0
Vehicles Entered	3	267	86	491	633	18	14	12	10	1534
Vehicles Exited	3	260	86	487	634	18	10	9	8	1515
Hourly Exit Rate	3	260	86	487	634	18	10	9	8	1515
Input Volume	3	316	99	748	992	26	50	44	39	2317
% of Volume	100	82	87	65	64	69	20	21	21	65
Denied Entry Before	0	0	0	0	0	0	0	0	1	1
Denied Entry After	0	0	0	0	0	0	36	37	31	104

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	44.4	51.1	47.7	0.0	0.0	0.0	0.7	0.4	0.7	17.3	12.6	6.7
Total Del/Veh (s)	203.5	498.7	8.3	64.4	65.5	20.1	79.7	26.3	33.7	360.3	207.9	102.6
Vehicles Entered	25	86	154	343	592	438	280	560	622	39	699	234
Vehicles Exited	23	82	154	343	594	440	280	560	622	42	698	231
Hourly Exit Rate	23	82	154	343	594	440	280	560	622	42	698	231
Input Volume	39	122	205	486	940	704	458	916	999	65	1058	334
% of Volume	59	67	75	71	63	63	61	61	62	65	66	69
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	1	2	4	0	0	0	0	0	0	0	4	1

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	6.2
Total Del/Veh (s)	91.0
Vehicles Entered	4072
Vehicles Exited	4069
Hourly Exit Rate	4069
Input Volume	6324
% of Volume	64
Denied Entry Before	0
Denied Entry After	12

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	9.0	0.0	11.7	0.1	0.2	3.9
Total Del/Veh (s)	45.2	50.1	9.1	245.1	106.1	193.9	219.4	131.4	118.2
Vehicles Entered	738	743	15	546	16	424	9	83	2574
Vehicles Exited	738	743	14	548	16	420	9	83	2571
Hourly Exit Rate	738	743	14	548	16	420	9	83	2571
Input Volume	1179	1073	21	977	33	779	10	80	4152
% of Volume	63	69	66	56	48	54	90	104	62
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	2	0	2	0	0	4

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.0
Total Del/Veh (s)	54.4	25.0	78.1	51.2	79.6	53.2	16.8	56.7	46.5	48.2
Vehicles Entered	322	845	484	93	90	15	29	90	186	2154
Vehicles Exited	323	844	483	93	90	15	29	90	184	2151
Hourly Exit Rate	323	844	483	93	90	15	29	90	184	2151
Input Volume	576	1391	818	155	93	14	25	88	182	3343
% of Volume	56	61	59	60	97	105	115	102	101	64
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	17.2	51.7	291.0	279.8	61.6
Total Del/Veh (s)	49.0	13.6	375.0	336.5	521.6	1259.2	352.6
Vehicles Entered	355	608	374	21	7	262	1627
Vehicles Exited	353	608	374	20	6	203	1564
Hourly Exit Rate	353	608	374	20	6	203	1564
Input Volume	549	956	636	33	9	340	2523
% of Volume	64	64	59	60	67	60	62
Denied Entry Before	0	0	1	0	0	0	1
Denied Entry After	0	0	2	0	3	77	82

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.8	0.0	1.1	0.3	0.0	0.0	0.0	0.3
Total Del/Veh (s)	105.1	39.7	89.8	64.8	11.1	46.7	7.6	52.7
Vehicles Entered	277	3	621	959	229	744	804	3637
Vehicles Exited	276	2	620	959	228	743	803	3631
Hourly Exit Rate	276	2	620	959	228	743	803	3631
Input Volume	434	4	983	1577	377	1092	1300	5767
% of Volume	64	53	63	61	60	68	62	63
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	1

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	1.6	0.3	0.1	13.3	14.8	16.0	0.1	1.6	3.6	0.1	0.0	0.0
Total Del/Veh (s)	85.2	45.2	32.8	992.6	959.2	964.4	121.9	74.1	62.3	79.7	33.6	6.9
Vehicles Entered	450	69	46	15	75	362	24	507	8	184	550	346
Vehicles Exited	450	70	47	8	49	230	25	507	8	183	552	346
Hourly Exit Rate	450	70	47	8	49	230	25	507	8	183	552	346
Input Volume	675	104	73	15	72	362	47	925	16	287	896	549
% of Volume	67	67	64	53	68	63	53	55	50	64	62	63
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	2	9	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	3.3
Total Del/Veh (s)	227.6
Vehicles Entered	2636
Vehicles Exited	2475
Hourly Exit Rate	2475
Input Volume	4022
% of Volume	62
Denied Entry Before	0
Denied Entry After	11

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	2.3	0.0	0.0	36.4	37.6	13.3
Total Del/Veh (s)	114.2	165.9	9.1	2.3	346.7	467.0	166.8
Vehicles Entered	4	245	372	54	339	16	1030
Vehicles Exited	4	245	373	54	310	14	1000
Hourly Exit Rate	4	245	373	54	310	14	1000
Input Volume	9	502	585	92	342	16	1547
% of Volume	43	49	64	59	91	86	65
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	9	0	9

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	145.1	98.3	0.0	0.0	645.2	670.5	221.4
Total Del/Veh (s)	376.4	388.8	9.2	6.4	885.3	869.9	301.0
Vehicles Entered	4	130	213	176	143	8	674
Vehicles Exited	4	128	214	176	122	6	650
Hourly Exit Rate	4	128	214	176	122	6	650
Input Volume	11	282	328	269	233	13	1137
% of Volume	36	45	65	65	52	45	57
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	7	0	0	88	4	99

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)		4.4	0.0	0.0	249.1	247.2	49.1
Total Del/Veh (s)		1073.3	2.7	2.4	1665.9	1624.4	692.0
Vehicles Entered	0	196	178	48	62	9	493
Vehicles Exited	0	104	178	48	28	4	362
Hourly Exit Rate	0	104	178	48	28	4	362
Input Volume	1	198	275	70	87	12	644
% of Volume	0	53	65	68	32	34	56
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	3	0	0	25	4	32

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		18.6	100.7	0.0	0.2	0.0	8.3
Total Del/Veh (s)	2245.4	1875.9	2190.6	335.5	824.9	937.5	84.3	1.9	0.9	566.7
Vehicles Entered	4	8	68	0	533	2	6	614	3	1238
Vehicles Exited	1	1	2	0	525	2	6	614	3	1154
Hourly Exit Rate	1	1	2	0	525	2	6	614	3	1154
Input Volume	4	8	65	1	911	3	10	979	4	1985
% of Volume	25	13	3	0	58	67	59	63	75	58
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	4	0	0	0	0	4

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	346.5	2.3	3.4	177.1
Vehicles Entered	897	1	974	1872
Vehicles Exited	896	1	975	1872
Hourly Exit Rate	896	1	975	1872
Input Volume	1417	4	1469	2890
% of Volume	63	27	66	65
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	1.9	1.1	0.0	0.9
Total Del/Veh (s)	3.4	93.9	113.1	1.5	49.8
Vehicles Entered	350	1463	121	1201	3135
Vehicles Exited	350	1452	120	1200	3122
Hourly Exit Rate	350	1452	120	1200	3122
Input Volume	644	2367	195	1750	4956
% of Volume	54	61	61	69	63
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

26: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.5	0.5
Total Del/Veh (s)	22.5	22.5
Vehicles Entered	602	602
Vehicles Exited	604	604
Hourly Exit Rate	604	604
Input Volume	908	908
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	440.6	0.1	261.9
Total Del/Veh (s)	438.1	23.2	226.8
Vehicles Entered	613	621	1234
Vehicles Exited	533	631	1164
Hourly Exit Rate	533	631	1164
Input Volume	910	987	1898
% of Volume	59	64	61
Denied Entry Before	0	0	0
Denied Entry After	297	0	297

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	9.0	9.0
Vehicles Entered	591	591
Vehicles Exited	592	592
Hourly Exit Rate	592	592
Input Volume	891	891
% of Volume	66	66
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	9.0	9.0
Total Del/Veh (s)	49.0	49.0
Vehicles Entered	1059	1059
Vehicles Exited	1057	1057
Hourly Exit Rate	1057	1057
Input Volume	1553	1553
% of Volume	68	68
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue & Bell St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.2	409.9	405.7	421.1	0.0	0.0	0.0	603.8	602.6	626.4
Total Del/Veh (s)	67.0	67.4	57.3	254.5	263.4	242.9	73.2	9.9	8.1	824.8	616.8	501.6
Vehicles Entered	31	112	21	118	141	30	114	825	88	35	851	23
Vehicles Exited	31	112	21	115	142	30	115	828	88	32	832	22
Hourly Exit Rate	31	112	21	115	142	30	115	828	88	32	832	22
Input Volume	33	112	20	140	167	33	194	1320	141	55	1289	40
% of Volume	93	100	105	82	85	90	59	63	62	58	65	55
Denied Entry Before	0	0	0	5	6	2	0	0	0	0	2	0
Denied Entry After	0	0	0	24	31	6	0	0	0	19	448	12

36: University Avenue & Bell St Performance by movement

Movement	All
Denied Del/Veh (s)	334.7
Total Del/Veh (s)	301.6
Vehicles Entered	2389
Vehicles Exited	2368
Hourly Exit Rate	2368
Input Volume	3544
% of Volume	67
Denied Entry Before	15
Denied Entry After	540

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	877.1	863.7	867.3
Total Del/Veh (s)	631.9	660.8	653.2
Vehicles Entered	358	981	1339
Vehicles Exited	351	979	1330
Hourly Exit Rate	351	979	1330
Input Volume	644	1779	2423
% of Volume	54	55	55
Denied Entry Before	18	47	65
Denied Entry After	306	838	1144

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	414.7	1.9	175.2
Vehicles Entered	400	618	1018
Vehicles Exited	392	618	1010
Hourly Exit Rate	392	618	1010
Input Volume	666	969	1634
% of Volume	59	64	62
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

61: Donohoe Street Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	18.8	24.5	22.7
Vehicles Entered	246	521	767
Vehicles Exited	241	523	764
Hourly Exit Rate	241	523	764
Input Volume	239	808	1047
% of Volume	101	65	73
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

Total Network Performance

Denied Del/Veh (s)	431.8
Total Del/Veh (s)	855.1
Vehicles Entered	7841
Vehicles Exited	6811
Hourly Exit Rate	6811
Input Volume	74316
% of Volume	9
Denied Entry Before	83
Denied Entry After	2792

Arterial Level of Service: EB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	61	18.8	50.5	0.3	19
Euclid Ave	1	250.8	342.2	0.4	5
US 101 NB On-Ramp	2	88.6	102.7	0.1	2
University Avenue	3	502.6	558.3	0.1	1
US 101 NB Off Ramp/C	4	39.7	47.2	0.1	5
	5	29.5	37.5	0.1	6
Donohoe Street	6	44.9	52.5	0.1	4
Total		974.8	1190.9	1.0	3

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Donohoe Street	6	1259.2	1571.6	0.4	1
Cooley Ave	5	61.7	69.8	0.1	3
	4	45.8	53.8	0.1	5
University Avenue	3	60.0	67.9	0.1	4
	2	5.6	15.2	0.1	19
Euclid Ave	1	20.2	28.5	0.1	7
	61	24.8	64.5	0.4	22
Total		1477.4	1871.2	1.1	3

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	63.5	75.9	0.1	4
US 101 NB Loop On-Ra	15	89.8	117.8	0.2	7
Donohoe Street	3	26.3	31.9	0.1	6
Bell St	36	4.4	28.8	0.2	25
Total		184.2	254.5	0.5	8

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bell St	36	616.8	1425.6	0.5	3
Donohoe Street	3	202.8	238.6	0.2	3
US 101 NB Loop Off-R	15	1.8	6.9	0.1	28
US 101 SB Off-Ramp	7	7.8	28.6	0.2	27
Woodland Avenue	8	34.5	46.2	0.1	6
Total		863.7	1745.9	1.0	4

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	241	1222	220	386
Average Queue (ft)	164	546	174	166
95th Queue (ft)	333	1588	241	466
Link Distance (ft)		2005	202	694
Upstream Blk Time (%)		2	4	5
Queuing Penalty (veh)		4	42	0
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	38	12		
Queuing Penalty (veh)	60	20		

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	SB
Directions Served	LT	TR	L	TR	LTR
Maximum Queue (ft)	208	78	327	336	460
Average Queue (ft)	168	12	180	92	398
95th Queue (ft)	280	56	332	267	581
Link Distance (ft)	202	202	316	316	453
Upstream Blk Time (%)	57	1	1	1	77
Queuing Penalty (veh)	118	1	9	5	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	R	L	LT	TR	R	L	L	T	T	R
Maximum Queue (ft)	260	344	117	249	310	297	257	95	235	244	256	87
Average Queue (ft)	99	316	33	207	272	244	110	33	175	175	234	86
95th Queue (ft)	294	384	82	324	297	324	234	91	244	297	251	92
Link Distance (ft)		316	316		249	249	249	87	87	87	87	
Upstream Blk Time (%)		81		8	39	29	1	2	60	19	46	39
Queuing Penalty (veh)		145		0	274	205	8	13	352	111	269	0
Storage Bay Dist (ft)	200			200								100
Storage Blk Time (%)		94		20	46						46	39
Queuing Penalty (veh)		36		141	111						455	177

Intersection: 3: University Avenue & Donohoe Street

Movement	SB	SB	SB	SB
Directions Served	L	T	T	R
Maximum Queue (ft)	260	1021	1027	125
Average Queue (ft)	112	1002	968	101
95th Queue (ft)	282	1015	1097	162
Link Distance (ft)		988	988	
Upstream Blk Time (%)		26	10	
Queuing Penalty (veh)		191	75	
Storage Bay Dist (ft)	235			100
Storage Blk Time (%)	1	72	42	10
Queuing Penalty (veh)	8	47	139	54

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	B58	B58	SB
Directions Served	T	T	T	T	TR	L	L	T	R	T	T	L
Maximum Queue (ft)	282	282	295	283	198	788	766	783	600	354	377	69
Average Queue (ft)	254	141	253	181	39	746	690	654	555	283	345	19
95th Queue (ft)	296	281	322	333	126	839	841	1073	743	447	373	55
Link Distance (ft)	249	249	258	258	258	686	686	686		186	186	525
Upstream Blk Time (%)	37	1	32	8	0	67	28	56		55	79	
Queuing Penalty (veh)	216	9	116	31	1	396	166	333		488	703	
Storage Bay Dist (ft)									500			
Storage Blk Time (%)								2	68			
Queuing Penalty (veh)								20	16			

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	SB
Directions Served	R
Maximum Queue (ft)	234
Average Queue (ft)	116
95th Queue (ft)	235
Link Distance (ft)	525
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	LT	R	LT	R
Maximum Queue (ft)	150	285	246	182	214	229	147	120	79	192	361
Average Queue (ft)	147	270	97	36	192	194	57	47	21	69	119
95th Queue (ft)	163	291	191	111	208	214	123	99	57	146	277
Link Distance (ft)		258	258	258	185	185	497	497	497	939	939
Upstream Blk Time (%)		41	0	0	56	52					
Queuing Penalty (veh)		267	1	0	273	252					
Storage Bay Dist (ft)	100										
Storage Blk Time (%)	44	35									
Queuing Penalty (veh)	205	202									

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	211	180	212	146	585	582	2245	2235
Average Queue (ft)	196	83	110	33	559	560	1860	2112
95th Queue (ft)	230	167	190	103	571	574	2727	2479
Link Distance (ft)	185	185	185	185	489	489	2208	2208
Upstream Blk Time (%)	34	0	1	0	97	98	57	70
Queuing Penalty (veh)	128	1	3	0	324	327	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	271	313	325	381	384	262	116	345	368	454	239
Average Queue (ft)	214	290	292	351	357	48	37	198	221	79	94
95th Queue (ft)	304	303	312	384	374	165	89	335	349	328	190
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	2	76	86	24	37	1				0	
Queuing Penalty (veh)	9	360	406	153	238	7				4	
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)								1	2		
Queuing Penalty (veh)								6	15		

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	184	191	157	5197	125	135	221	222	287	304	322	313
Average Queue (ft)	161	162	57	3377	124	36	136	201	261	173	153	158
95th Queue (ft)	173	178	141	5673	129	98	234	240	298	277	264	261
Link Distance (ft)	156	156	156	5698			144	144	202		349	349
Upstream Blk Time (%)	69	76	4	8		0	25	70	69		0	0
Queuing Penalty (veh)	194	214	12	0		0	122	342	670		1	0
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				4	90	1	33			4	1	
Queuing Penalty (veh)				16	79	2	16			19	4	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	188
Average Queue (ft)	69
95th Queue (ft)	135
Link Distance (ft)	349
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	215	222	145	139	62	906	956
Average Queue (ft)	123	208	58	52	9	555	648
95th Queue (ft)	235	218	118	106	39	1064	1104
Link Distance (ft)	207	207	156	156		1048	1048
Upstream Blk Time (%)	13	76	0	0		8	16
Queuing Penalty (veh)	33	193	0	1		0	0
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				1	0		
Queuing Penalty (veh)				1	0		

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	387	140	125	1076
Average Queue (ft)	377	64	59	993
95th Queue (ft)	385	110	98	1257
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	82	0		80
Queuing Penalty (veh)	234	0		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	2454	1170
Average Queue (ft)	1471	849
95th Queue (ft)	2888	1404
Link Distance (ft)	3343	1194
Upstream Blk Time (%)	0	33
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	302	1993	4367	53	227	264	255
Average Queue (ft)	182	1268	4353	8	21	170	128
95th Queue (ft)	350	2114	4406	33	124	302	279
Link Distance (ft)	1080	2561	4352		202	144	144
Upstream Blk Time (%)			40		1	11	6
Queuing Penalty (veh)			363		9	52	28
Storage Bay Dist (ft)				100			
Storage Blk Time (%)					1		
Queuing Penalty (veh)					0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17	NE	NE
Directions Served	R	R	T	R	R
Maximum Queue (ft)	1366	1363	8579	6	6
Average Queue (ft)	1342	1331	7609	0	0
95th Queue (ft)	1374	1375	10496	6	5
Link Distance (ft)	1279	1279	8523	237	237
Upstream Blk Time (%)	50	41	67		
Queuing Penalty (veh)	0	0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	185	1472	1066	1053	74	77
Average Queue (ft)	45	383	828	964	5	11
95th Queue (ft)	125	1439	1248	1193	38	45
Link Distance (ft)	288	1309	1034	1034	87	87
Upstream Blk Time (%)			2	10	0	0
Queuing Penalty (veh)			29	131	2	1
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 26: US 101 NB On-Ramp

Movement	WB
Directions Served	T
Maximum Queue (ft)	341
Average Queue (ft)	183
95th Queue (ft)	324
Link Distance (ft)	375
Upstream Blk Time (%)	0
Queuing Penalty (veh)	4
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 27: University Avenue

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	2388	51
Average Queue (ft)	2023	2
95th Queue (ft)	3141	21
Link Distance (ft)	2340	4352
Upstream Blk Time (%)	74	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	116
Average Queue (ft)	83
95th Queue (ft)	101
Link Distance (ft)	18
Upstream Blk Time (%)	47
Queuing Penalty (veh)	418
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	610	637
Average Queue (ft)	303	323
95th Queue (ft)	563	578
Link Distance (ft)	667	667
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	1	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue & Bell St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	292	569	149	258	238	150	2523	2515
Average Queue (ft)	140	543	103	95	109	93	2482	2477
95th Queue (ft)	258	583	160	209	202	201	2549	2555
Link Distance (ft)	507	528		988	988		2465	2465
Upstream Blk Time (%)	0	93					94	90
Queuing Penalty (veh)	0	0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)			8	2		1	94	
Queuing Penalty (veh)			55	3		6	52	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	4344	4341
Average Queue (ft)	4308	4310
95th Queue (ft)	4345	4338
Link Distance (ft)	4287	4287
Upstream Blk Time (%)	85	95
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB	B42	B42	SB
Directions Served	T	T	T	T	T
Maximum Queue (ft)	660	654	2514	2518	3
Average Queue (ft)	628	626	1619	1610	0
95th Queue (ft)	679	675	2983	2960	3
Link Distance (ft)	560	560	2483	2483	489
Upstream Blk Time (%)	97	97	28	26	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 61: Donohoe Street

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	235	315
Average Queue (ft)	86	150
95th Queue (ft)	185	297
Link Distance (ft)	1392	2005
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 12052

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.9	0.9	0.0	0.0	0.3	0.3	0.5
Total Del/Veh (s)	89.6	77.5	3.1	1.3	31.0	28.0	48.9
Vehicles Entered	2	493	122	43	360	6	1026
Vehicles Exited	2	479	122	43	361	6	1013
Hourly Exit Rate	2	479	122	43	361	6	1013
Input Volume	2	485	122	41	360	5	1015
% of Volume	100	99	100	106	100	114	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	All
Denied Del/Veh (s)	0.5	1.4	0.0	0.0	0.0	0.1	0.1	0.5
Total Del/Veh (s)	28.2	30.3	28.1	19.1	6.7	31.3	35.0	27.4
Vehicles Entered	626	247	393	171	3	1	2	1443
Vehicles Exited	624	247	398	172	3	1	2	1447
Hourly Exit Rate	624	247	398	172	3	1	2	1447
Input Volume	628	249	415	170	3	1	1	1467
% of Volume	99	99	96	101	100	80	160	99
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.3	1.2	0.0	0.0	0.0	0.0	0.1	0.0	90.5	97.7	98.8
Total Del/Veh (s)	70.9	72.4	65.1	41.3	36.0	9.8	43.2	20.0	6.5	257.9	243.1	235.8
Vehicles Entered	14	75	520	517	408	452	89	379	445	16	877	67
Vehicles Exited	14	76	521	501	400	453	90	386	446	17	890	69
Hourly Exit Rate	14	76	521	501	400	453	90	386	446	17	890	69
Input Volume	14	75	526	512	405	448	86	383	446	24	1129	87
% of Volume	102	101	99	98	99	101	104	101	100	72	79	79
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	1	32	2

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	25.1
Total Del/Veh (s)	87.6
Vehicles Entered	3859
Vehicles Exited	3863
Hourly Exit Rate	3863
Input Volume	4134
% of Volume	93
Denied Entry Before	0
Denied Entry After	35

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	8.3	9.3	3.7	21.5	16.6	7.4	41.4	5.5	11.6
Vehicles Entered	545	906	22	459	76	225	2	19	2254
Vehicles Exited	548	906	22	456	76	225	2	19	2254
Hourly Exit Rate	548	906	22	456	76	225	2	19	2254
Input Volume	553	889	22	460	75	222	2	19	2242
% of Volume	99	102	101	99	102	101	100	100	101
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.1	0.2	0.3	0.1
Total Del/Veh (s)	58.1	57.6	5.6	14.3	6.4	67.5	53.5	16.0	18.1
Vehicles Entered	15	168	592	596	31	12	74	304	1792
Vehicles Exited	15	168	592	599	31	12	73	305	1795
Hourly Exit Rate	15	168	592	599	31	12	73	305	1795
Input Volume	16	170	588	582	29	11	78	302	1776
% of Volume	94	99	101	103	108	109	94	101	101
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

6: Donohoe Street & E Bayshore Rd Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	18.4	27.9	2.7	11.8	4.9	29.3	11.3	12.3
Vehicles Entered	1	262	383	362	8	8	267	1291
Vehicles Exited	1	262	384	363	8	8	268	1294
Hourly Exit Rate	1	262	384	363	8	8	268	1294
Input Volume	1	267	379	358	7	8	258	1278
% of Volume	100	98	101	102	110	97	104	101
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	4.4	0.0	2.9	0.1	0.0	0.0	0.0	0.5
Total Del/Veh (s)	156.1	19.0	33.0	30.3	15.3	88.9	25.6	45.8
Vehicles Entered	204	6	278	981	423	803	1278	3973
Vehicles Exited	195	6	274	987	424	792	1285	3963
Hourly Exit Rate	195	6	274	987	424	792	1285	3963
Input Volume	222	6	282	971	425	907	1404	4216
% of Volume	88	100	97	102	100	87	92	94
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.4	0.6	0.5	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.7	0.3
Total Del/Veh (s)	51.9	52.3	48.1	62.3	63.2	36.3	65.0	27.3	26.4	71.3	63.3	8.5
Vehicles Entered	404	125	61	9	98	347	50	625	7	142	928	421
Vehicles Exited	401	124	61	8	96	348	50	632	7	143	936	421
Hourly Exit Rate	401	124	61	8	96	348	50	632	7	143	936	421
Input Volume	406	123	59	10	98	348	50	616	7	158	1012	465
% of Volume	99	101	103	78	98	100	100	103	97	91	92	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	44.5
Vehicles Entered	3217
Vehicles Exited	3227
Hourly Exit Rate	3227
Input Volume	3354
% of Volume	96
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	10.9	12.8	1.7	1.3	56.4	31.9	10.9
Vehicles Entered	19	486	366	230	94	7	1202
Vehicles Exited	19	486	366	231	95	7	1204
Hourly Exit Rate	19	486	366	231	95	7	1204
Input Volume	20	489	397	245	91	6	1249
% of Volume	94	99	92	94	104	112	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	4.2	0.1	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	10.0	12.1	7.1	4.0	12.8	8.9	9.7
Vehicles Entered	3	272	200	151	242	5	873
Vehicles Exited	3	272	201	151	242	5	874
Hourly Exit Rate	3	272	201	151	242	5	874
Input Volume	3	278	213	163	240	6	902
% of Volume	100	98	94	93	101	87	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	5.1	1.2	2.5	2.2	7.3	5.5	3.6
Vehicles Entered	3	121	176	40	143	13	496
Vehicles Exited	3	122	177	40	143	13	498
Hourly Exit Rate	3	122	177	40	143	13	498
Input Volume	4	121	186	43	151	14	518
% of Volume	80	101	95	92	95	95	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	54.7	29.5	9.4	24.0	13.0	14.6	5.0	1.6	1.8	6.7
Vehicles Entered	3	8	62	1	676	3	42	947	3	1745
Vehicles Exited	3	8	63	1	677	3	42	942	3	1742
Hourly Exit Rate	3	8	63	1	677	3	42	942	3	1742
Input Volume	4	8	65	1	669	3	47	1023	4	1824
% of Volume	75	103	97	100	101	100	89	92	75	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1
Total Del/Veh (s)	107.2	8.4	22.9	47.6
Vehicles Entered	500	4	1217	1721
Vehicles Exited	482	4	1208	1694
Hourly Exit Rate	482	4	1208	1694
Input Volume	504	5	1332	1841
% of Volume	96	84	91	92
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	11.9	8.5	8.9	2.7	5.4
Vehicles Entered	200	923	328	1959	3410
Vehicles Exited	200	913	324	1955	3392
Hourly Exit Rate	200	913	324	1955	3392
Input Volume	198	913	327	2191	3630
% of Volume	101	100	99	89	93
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.6	0.3	0.4
Total Del/Veh (s)	4.2	25.1	16.8
Vehicles Entered	679	985	1664
Vehicles Exited	680	988	1668
Hourly Exit Rate	680	988	1668
Input Volume	673	1066	1739
% of Volume	101	93	96
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	13.5	13.5
Vehicles Entered	645	645
Vehicles Exited	645	645
Hourly Exit Rate	645	645
Input Volume	665	665
% of Volume	97	97
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	116.9	116.9
Total Del/Veh (s)	139.4	139.5
Vehicles Entered	1223	1223
Vehicles Exited	1206	1206
Hourly Exit Rate	1206	1206
Input Volume	1408	1408
% of Volume	86	86
Denied Entry Before	0	0
Denied Entry After	62	62

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.2	0.8	0.7	0.5	0.1	0.0	0.0	62.4	76.4	70.1
Total Del/Veh (s)	20.9	20.6	28.3	83.5	78.5	77.6	32.2	11.4	10.4	606.6	545.2	532.2
Vehicles Entered	10	68	50	171	111	15	19	803	34	14	870	8
Vehicles Exited	10	68	49	166	108	15	19	800	34	12	725	7
Hourly Exit Rate	10	68	49	166	108	15	19	800	34	12	725	7
Input Volume	11	67	48	166	106	14	20	792	34	15	971	9
% of Volume	91	101	102	100	102	107	95	101	99	80	75	78
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	1	94	1

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	33.3
Total Del/Veh (s)	249.3
Vehicles Entered	2173
Vehicles Exited	2013
Hourly Exit Rate	2013
Input Volume	2253
% of Volume	89
Denied Entry Before	0
Denied Entry After	96

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.2	0.2	0.2
Total Del/Veh (s)	5.9	3.1	3.7
Vehicles Entered	200	749	949
Vehicles Exited	200	748	948
Hourly Exit Rate	200	748	948
Input Volume	198	745	943
% of Volume	101	100	101
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.5	0.6	0.5
Vehicles Entered	358	395	753
Vehicles Exited	358	395	753
Hourly Exit Rate	358	395	753
Input Volume	353	390	744
% of Volume	101	101	101
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	5.2	5.2
Total Del/Veh (s)	24.0	24.0
Vehicles Entered	662	662
Vehicles Exited	662	662
Hourly Exit Rate	662	662
Input Volume	682	682
% of Volume	97	97
Denied Entry Before	1	1
Denied Entry After	1	1

Total Network Performance

Denied Del/Veh (s)	46.4
Total Del/Veh (s)	239.1
Vehicles Entered	6997
Vehicles Exited	6768
Hourly Exit Rate	6768
Input Volume	48272
% of Volume	14
Denied Entry Before	1
Denied Entry After	195

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	42	1.1	57.5	0.5	30
O Connor St	44	0.5	14.6	0.1	28
Total		1.6	72.1	0.6	30

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	14.8	26.9	0.1	11
US 101 NB Loop On-Ra	15	9.5	35.3	0.2	22
Donohoe Street	3	20.0	25.0	0.1	8
	36	12.5	36.7	0.2	20
Total		56.8	124.0	0.5	16

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	36	545.2	671.3	0.5	3
Donohoe Street	3	240.5	380.6	0.2	3
US 101 NB Loop Off-R	15	3.3	8.4	0.1	23
US 101 SB Off-Ramp	7	25.3	46.1	0.2	17
Woodland Avenue	8	64.1	76.6	0.1	4
Total		878.4	1183.0	1.0	4

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	WB	SB
Directions Served	LT	T	T	R	LR
Maximum Queue (ft)	246	806	79	38	344
Average Queue (ft)	114	289	9	6	180
95th Queue (ft)	270	999	44	24	302
Link Distance (ft)		2267	199	199	3225
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	5	16			
Queuing Penalty (veh)	11	39			

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	WB	SB
Directions Served	LT	TR	L	LT	TR	LTR
Maximum Queue (ft)	253	260	134	322	243	33
Average Queue (ft)	173	205	105	161	40	3
95th Queue (ft)	268	262	165	281	133	18
Link Distance (ft)	199	199		329	329	448
Upstream Blk Time (%)	13	24		0	0	
Queuing Penalty (veh)	56	101		1	0	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			17	31		
Queuing Penalty (veh)			49	65		

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	L	L	T	TR	R	L	L	T	T
Maximum Queue (ft)	232	369	378	249	287	253	246	175	110	72	217	232
Average Queue (ft)	26	260	314	176	158	147	119	67	27	18	85	113
95th Queue (ft)	125	447	411	259	273	224	204	138	74	53	188	235
Link Distance (ft)		329	329		250	250	250	250	82	82	82	82
Upstream Blk Time (%)		13	23	1	2	0	0	0	0	0	12	10
Queuing Penalty (veh)		40	70	0	8	1	1	0	1	1	28	22
Storage Bay Dist (ft)	200			200								
Storage Blk Time (%)	0	15		7	3							10
Queuing Penalty (veh)	0	2		19	8							44

Intersection: 3: University Avenue & Donohoe Street

Movement	NB	SB	SB	SB
Directions Served	R	L	T	TR
Maximum Queue (ft)	82	259	1018	1030
Average Queue (ft)	63	52	994	994
95th Queue (ft)	108	201	1009	1014
Link Distance (ft)			982	982
Upstream Blk Time (%)	4		36	33
Queuing Penalty (veh)	0		211	195
Storage Bay Dist (ft)	100	235		
Storage Blk Time (%)	4		75	
Queuing Penalty (veh)	7		18	

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	239	185	265	97	75	76	187	151	92	125	26	39
Average Queue (ft)	106	27	123	27	22	24	102	78	32	57	2	7
95th Queue (ft)	207	106	241	77	56	58	165	128	71	101	15	29
Link Distance (ft)	250	250	262	262	262	262	956	956	956		514	514
Upstream Blk Time (%)	0	0	1	0								
Queuing Penalty (veh)	1	0	3	0								
Storage Bay Dist (ft)										500		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	UL	T	T	T	TR	L	LT	LT	R
Maximum Queue (ft)	257	224	146	217	176	36	44	135	246
Average Queue (ft)	145	71	18	126	45	5	6	52	99
95th Queue (ft)	237	170	82	230	125	24	26	111	201
Link Distance (ft)	262	262	262	199	199	497	497	924	924
Upstream Blk Time (%)	1	0		4	0				
Queuing Penalty (veh)	2	1		13	1				
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 6: Donohoe Street & E Bayshore Rd

Movement	EB	EB	EB	EB	WB	WB	SB	SB
Directions Served	UL	T	T	T	T	TR	L	R
Maximum Queue (ft)	222	80	84	33	197	124	31	193
Average Queue (ft)	135	23	21	2	83	35	5	72
95th Queue (ft)	213	62	63	16	162	86	23	144
Link Distance (ft)	199	199	199	199	480	480	2169	2169
Upstream Blk Time (%)	2							
Queuing Penalty (veh)	4							
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	228	271	249	366	364	181	150	371	419	926	882
Average Queue (ft)	132	186	126	238	272	77	84	285	325	464	389
95th Queue (ft)	253	317	249	357	366	139	135	425	483	1138	957
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	2	29	6	1	1	0				7	1
Queuing Penalty (veh)	3	49	10	3	6	0				82	17
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)								14	23	3	
Queuing Penalty (veh)								99	161	29	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	167	178	163	433	125	130	214	222	263	320	373	374
Average Queue (ft)	124	147	119	172	115	54	121	174	74	185	316	318
95th Queue (ft)	178	184	181	363	145	116	203	245	222	360	421	418
Link Distance (ft)	156	156	156	5698			144	144	202		349	349
Upstream Blk Time (%)	7	20	10			0	7	21	2		18	18
Queuing Penalty (veh)	14	41	19			0	23	72	16		98	99
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				7	24	1	10			1	40	
Queuing Penalty (veh)				24	26	2	5			3	64	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	226
Average Queue (ft)	95
95th Queue (ft)	176
Link Distance (ft)	349
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	148	210	71	68	48	71	134
Average Queue (ft)	34	93	15	23	10	23	52
95th Queue (ft)	95	203	51	56	37	56	106
Link Distance (ft)	207	207	156	156		1048	1048
Upstream Blk Time (%)	0	5					
Queuing Penalty (veh)	0	13					
Storage Bay Dist (ft)					100		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	192	88	76	194
Average Queue (ft)	66	48	42	60
95th Queue (ft)	154	75	65	145
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	1			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	28	2	99
Average Queue (ft)	2	0	46
95th Queue (ft)	19	2	78
Link Distance (ft)	2311	376	1194
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	46	77	225	73	221	274	269
Average Queue (ft)	11	33	16	17	21	245	234
95th Queue (ft)	37	65	102	52	119	292	297
Link Distance (ft)	1080	2561	4352		202	144	144
Upstream Blk Time (%)					0	29	18
Queuing Penalty (veh)					4	153	98
Storage Bay Dist (ft)				100			
Storage Blk Time (%)					1		
Queuing Penalty (veh)					0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17	NE	NE
Directions Served	R	R	T	R	R
Maximum Queue (ft)	531	515	397	268	279
Average Queue (ft)	232	215	97	165	176
95th Queue (ft)	925	903	888	332	349
Link Distance (ft)	1279	1279	4248	237	237
Upstream Blk Time (%)	6	4	0	5	11
Queuing Penalty (veh)	0	0	0	34	73
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	167	5	136	311	160	157
Average Queue (ft)	61	0	7	34	38	34
95th Queue (ft)	133	10	66	168	144	116
Link Distance (ft)	294	1354	1034	1034	82	82
Upstream Blk Time (%)	0				4	2
Queuing Penalty (veh)	0				44	23
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 27: University Avenue

Movement	WB
Directions Served	T
Maximum Queue (ft)	55
Average Queue (ft)	3
95th Queue (ft)	26
Link Distance (ft)	4352
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	128
Average Queue (ft)	95
95th Queue (ft)	113
Link Distance (ft)	28
Upstream Blk Time (%)	66
Queuing Penalty (veh)	436
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	757	752
Average Queue (ft)	694	693
95th Queue (ft)	830	816
Link Distance (ft)	672	672
Upstream Blk Time (%)	72	74
Queuing Penalty (veh)	478	495
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	143	540	61	195	210	150	2548	2545
Average Queue (ft)	64	247	17	94	117	35	1865	1848
95th Queue (ft)	120	524	48	161	182	131	2962	2945
Link Distance (ft)	966	995		982	982		2505	2505
Upstream Blk Time (%)		1					35	33
Queuing Penalty (veh)		0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)				2		0	86	
Queuing Penalty (veh)				0		0	13	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	61	41
Average Queue (ft)	6	2
95th Queue (ft)	32	20
Link Distance (ft)	2146	2146
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 57: US 101 NB On-Ramp

Movement	WB	B26	B26
Directions Served	T	T	
Maximum Queue (ft)	218	197	212
Average Queue (ft)	190	96	87
95th Queue (ft)	269	196	204
Link Distance (ft)	148	167	167
Upstream Blk Time (%)	49	3	6
Queuing Penalty (veh)	325	11	18
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 4208

1: Donohoe St & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.2	0.0	0.2	0.2	0.2
Total Del/Veh (s)	25.7	5.2	9.2	4.4	45.1	29.5	11.1
Vehicles Entered	13	250	606	136	86	22	1113
Vehicles Exited	13	250	606	136	86	22	1113
Hourly Exit Rate	13	250	606	136	86	22	1113
Input Volume	13	250	644	142	90	20	1160
% of Volume	98	100	94	96	95	109	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.4	0.1		0.1	0.1	0.2
Total Del/Veh (s)	15.9	10.7	30.3	25.8		46.9	9.0	24.5
Vehicles Entered	263	80	405	746	0	1	3	1498
Vehicles Exited	263	80	406	747	0	1	3	1500
Hourly Exit Rate	263	80	406	747	0	1	3	1500
Input Volume	268	79	413	794	1	1	2	1558
% of Volume	98	101	98	94	0	100	150	96
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.0	0.0	0.0
Total Del/Veh (s)	139.2	78.4	6.3	33.7	57.6	30.2	31.8	24.5	16.6	47.1	48.0	48.8
Vehicles Entered	10	98	153	284	697	516	306	639	686	54	679	131
Vehicles Exited	10	98	154	283	691	513	307	638	686	55	679	130
Hourly Exit Rate	10	98	154	283	691	513	307	638	686	55	679	130
Input Volume	11	100	156	293	706	508	350	722	769	55	684	127
% of Volume	91	98	99	97	98	101	88	88	89	100	99	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	36.2
Vehicles Entered	4253
Vehicles Exited	4244
Hourly Exit Rate	4244
Input Volume	4480
% of Volume	95
Denied Entry Before	0
Denied Entry After	0

4: US 101 NB Off Ramp/Capitol Ave & Donohoe St Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0
Total Del/Veh (s)	33.9	25.2	8.7	27.5	14.7	38.2	57.1	8.1	30.2
Vehicles Entered	834	705	18	732	38	572	7	67	2973
Vehicles Exited	833	701	18	729	38	571	7	66	2963
Hourly Exit Rate	833	701	18	729	38	571	7	66	2963
Input Volume	919	713	17	729	34	576	8	64	3060
% of Volume	91	98	104	100	112	99	88	103	97
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe St & Cooley Ave Performance by movement

Movement	EBU	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	1.0	1.1	0.2	0.2	0.2	0.1
Total Del/Veh (s)	32.7	35.1	15.6	29.5	18.5	45.3	46.7	12.5	43.1	7.8	23.7
Vehicles Entered	12	370	1031	534	106	72	6	33	91	108	2363
Vehicles Exited	12	370	1029	533	106	72	6	33	92	108	2361
Hourly Exit Rate	12	370	1029	533	106	72	6	33	92	108	2361
Input Volume	13	394	1096	536	105	74	7	29	89	108	2452
% of Volume	91	94	94	99	101	97	86	113	103	100	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0

6: E. Bayshore & Donohoe Street Performance by movement

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	40.2	22.0	16.9	9.1	33.9	34.1	2.8	14.6
Vehicles Entered	7	165	466	27	15	343	796	1819
Vehicles Exited	7	164	466	27	15	344	795	1818
Hourly Exit Rate	7	164	466	27	15	344	795	1818
Input Volume	7	164	469	26	13	363	839	1882
% of Volume	100	100	99	103	113	95	95	97
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1	0.0	0.1	0.0	0.1
Total Del/Veh (s)	79.5	16.1	42.8	52.2	12.1	42.8	10.4	39.1
Vehicles Entered	312	4	687	1108	222	598	905	3836
Vehicles Exited	305	4	683	1125	220	596	908	3841
Hourly Exit Rate	305	4	683	1125	220	596	908	3841
Input Volume	321	4	711	1352	270	610	902	4169
% of Volume	95	114	96	83	81	98	101	92
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Denied Del/Veh (s)	0.1	0.0	0.0	0.3	0.3	0.3	8.5	6.6	6.9	0.9	1.0	0.2
Total Del/Veh (s)	31.0	26.5	17.3	78.2	72.9	71.4	113.5	88.9	92.7	127.2	119.5	38.2
Vehicles Entered	538	92	46	10	60	309	14	512	8	6	230	572
Vehicles Exited	541	93	46	10	60	309	14	504	8	6	230	562
Hourly Exit Rate	541	93	46	10	60	309	14	504	8	6	230	562
Input Volume	530	88	45	12	57	306	25	819	13	6	233	580
% of Volume	102	106	102	83	105	101	55	62	62	100	99	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	2	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	SBR	All
Denied Del/Veh (s)	0.0	1.5
Total Del/Veh (s)	10.1	54.1
Vehicles Entered	379	2776
Vehicles Exited	379	2762
Hourly Exit Rate	379	2762
Input Volume	379	3093
% of Volume	100	89
Denied Entry Before	0	0
Denied Entry After	0	2

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	11.5	7.9	5.8	2.5	51.1	42.6	15.6
Vehicles Entered	8	447	386	73	221	7	1142
Vehicles Exited	8	448	386	73	223	7	1145
Hourly Exit Rate	8	448	386	73	223	7	1145
Input Volume	8	437	392	76	220	7	1140
% of Volume	97	103	99	96	101	97	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Woodland Avenue & Manhattan Dr Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.0
Total Del/Veh (s)	7.9	7.8	7.5	5.1	4.5	2.9	6.3
Vehicles Entered	1	272	181	208	187	7	856
Vehicles Exited	1	272	180	207	188	7	855
Hourly Exit Rate	1	272	180	207	188	7	855
Input Volume	2	268	181	215	181	6	852
% of Volume	50	101	100	96	104	117	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	2.0	1.7	1.9	1.7	6.5	3.5	2.7
Vehicles Entered	1	181	127	62	85	9	465
Vehicles Exited	1	181	126	62	85	9	464
Hourly Exit Rate	1	181	126	62	85	9	464
Input Volume	1	178	128	60	85	8	461
% of Volume	100	102	98	103	100	109	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: Woodland Ave & Crescent Dr Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		253.0	155.5	0.2	0.2	0.1	110.9
Total Del/Veh (s)	197.6	32.9	56.6		482.9	448.7	13.2	1.9	1.5	206.4
Vehicles Entered	3	9	67	0	489	3	10	631	4	1216
Vehicles Exited	3	8	66	0	430	2	10	636	4	1159
Hourly Exit Rate	3	8	66	0	430	2	10	636	4	1159
Input Volume	4	8	65	1	745	3	10	639	4	1479
% of Volume	80	103	102	0	58	62	98	100	94	78
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	73	0	0	0	0	73

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	23.9	1.3	3.0	14.6
Vehicles Entered	1018	2	817	1837
Vehicles Exited	999	2	809	1810
Hourly Exit Rate	999	2	809	1810
Input Volume	1032	2	880	1914
% of Volume	97	89	92	95
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.0	0.1
Total Del/Veh (s)	2.7	15.9	25.8	2.2	10.5
Vehicles Entered	431	1643	200	1056	3330
Vehicles Exited	432	1640	196	1057	3325
Hourly Exit Rate	432	1640	196	1057	3325
Input Volume	423	1860	238	1072	3594
% of Volume	102	88	82	99	93
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

27: Woodland Ave Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	87.2	3.2	36.0
Total Del/Veh (s)	372.1	8.7	140.4
Vehicles Entered	594	1049	1643
Vehicles Exited	487	1047	1534
Hourly Exit Rate	487	1047	1534
Input Volume	670	1058	1728
% of Volume	73	99	89
Denied Entry Before	0	0	0
Denied Entry After	79	2	81

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.1	0.1
Total Del/Veh (s)	10.2	10.2
Vehicles Entered	493	493
Vehicles Exited	493	493
Hourly Exit Rate	493	493
Input Volume	502	502
% of Volume	98	98
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	21.8	21.8
Vehicles Entered	858	858
Vehicles Exited	873	873
Hourly Exit Rate	873	873
Input Volume	930	930
% of Volume	94	94
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.2	0.2	0.3	0.3	0.3	689.6	686.0	694.4	0.2	0.1	0.2
Total Del/Veh (s)	35.4	36.7	22.4	50.6	46.7	40.6	477.8	90.5	78.3	76.9	20.2	16.6
Vehicles Entered	4	85	18	109	126	32	90	1188	67	41	733	26
Vehicles Exited	5	86	18	111	127	33	83	1182	67	41	735	26
Hourly Exit Rate	5	86	18	111	127	33	83	1182	67	41	735	26
Input Volume	5	84	16	112	126	34	155	1991	113	44	737	25
% of Volume	100	102	111	99	101	97	53	59	59	93	100	105
Denied Entry Before	0	0	0	0	0	0	1	12	1	0	0	0
Denied Entry After	0	0	0	0	0	0	57	752	43	0	0	0

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	447.6
Total Del/Veh (s)	76.3
Vehicles Entered	2519
Vehicles Exited	2514
Hourly Exit Rate	2514
Input Volume	3443
% of Volume	73
Denied Entry Before	14
Denied Entry After	852

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.3	0.4	0.4
Total Del/Veh (s)	17.2	12.8	13.9
Vehicles Entered	428	1324	1752
Vehicles Exited	430	1325	1755
Hourly Exit Rate	430	1325	1755
Input Volume	423	1323	1746
% of Volume	102	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: O Connor St & E. Bayshore Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.8	0.9	0.8
Vehicles Entered	487	811	1298
Vehicles Exited	487	812	1299
Hourly Exit Rate	487	812	1299
Input Volume	489	854	1344
% of Volume	100	95	97
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

58: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	1.3	1.3
Total Del/Veh (s)	27.4	27.4
Vehicles Entered	498	498
Vehicles Exited	498	498
Hourly Exit Rate	498	498
Input Volume	505	505
% of Volume	99	99
Denied Entry Before	0	0
Denied Entry After	0	0

Total Network Performance

Denied Del/Veh (s)	188.7
Total Del/Veh (s)	185.5
Vehicles Entered	8120
Vehicles Exited	7911
Hourly Exit Rate	7911
Input Volume	54888
% of Volume	14
Denied Entry Before	14
Denied Entry After	1008

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	6	40.2	57.6	0.1	9
Total		40.2	57.6	0.1	9

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	54.7	66.7	0.1	4
US 101 NB Loop On-Ra	15	18.6	44.6	0.2	17
Donohoe Street	3	24.5	29.6	0.1	6
	36	88.8	1853.9	0.2	7
Total		186.6	1994.8	0.5	8

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	36	20.2	162.7	1.2	27
Donohoe Street	3	49.8	72.2	0.2	10
US 101 NB Loop Off-R	15	2.8	8.1	0.1	23
US 101 SB Off-Ramp	7	10.3	40.4	0.2	19
Woodland Avenue	8	42.2	54.3	0.1	5
Total		125.2	337.8	1.8	19

Intersection: 1: Donohoe St & Euclid Ave

Movement	EB	EB	WB	WB	SB
Directions Served	LT	T	T	R	LR
Maximum Queue (ft)	81	100	251	238	167
Average Queue (ft)	22	24	82	43	76
95th Queue (ft)	63	71	226	157	136
Link Distance (ft)		2624	194	194	1322
Upstream Blk Time (%)			2	1	
Queuing Penalty (veh)			8	2	
Storage Bay Dist (ft)	250				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	WB	SB
Directions Served	LT	TR	L	LT	TR	LTR
Maximum Queue (ft)	116	183	135	344	359	33
Average Queue (ft)	38	79	100	218	201	4
95th Queue (ft)	89	150	174	366	370	22
Link Distance (ft)	194	194		331	331	146
Upstream Blk Time (%)	0	0		2	2	
Queuing Penalty (veh)	0	0		13	10	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			15	42		
Queuing Penalty (veh)			91	87		

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	L	L	T	TR	R	L	L	T	T
Maximum Queue (ft)	101	212	129	199	159	286	288	281	207	194	232	247
Average Queue (ft)	17	86	48	114	76	221	218	158	82	80	156	202
95th Queue (ft)	64	182	100	181	134	317	316	281	171	156	245	274
Link Distance (ft)		331	331		254	254	254	254	94	94	94	94
Upstream Blk Time (%)		0				17	15	2	6	6	24	31
Queuing Penalty (veh)		0				63	55	6	26	25	109	143
Storage Bay Dist (ft)	200			200								
Storage Blk Time (%)		4		1	0							31
Queuing Penalty (veh)		0		1	0							242

Intersection: 3: University Avenue & Donohoe Street

Movement	NB	SB	SB	SB
Directions Served	R	L	T	TR
Maximum Queue (ft)	94	260	444	426
Average Queue (ft)	92	75	257	233
95th Queue (ft)	99	220	414	389
Link Distance (ft)			982	982
Upstream Blk Time (%)	21			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)	200	235		
Storage Blk Time (%)	21	0	18	
Queuing Penalty (veh)	73	0	10	

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	279	284	242	191	190	167	414	374	607	300	41	81
Average Queue (ft)	209	199	94	77	79	58	211	148	166	231	8	25
95th Queue (ft)	306	303	193	185	183	146	376	383	582	345	32	62
Link Distance (ft)	254	254	258	258	258	258	956	956	956		670	670
Upstream Blk Time (%)	7	6	0	1	1	1	0	0	1			
Queuing Penalty (veh)	33	27	0	1	1	1	0	0	7			
Storage Bay Dist (ft)										100		
Storage Blk Time (%)									0	40		
Queuing Penalty (veh)									0	7		

Intersection: 5: Donohoe St & Cooley Ave

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	UL	T	T	T	TR	L	LT	R	LT	R
Maximum Queue (ft)	278	273	285	232	221	66	81	67	138	91
Average Queue (ft)	218	130	231	151	104	19	39	23	60	38
95th Queue (ft)	302	252	318	244	215	52	78	54	114	70
Link Distance (ft)	258	258	258	204	204	64	64	64	851	851
Upstream Blk Time (%)	6	1	7	8	3	2	7	1		
Queuing Penalty (veh)	28	5	34	26	10	0	0	0		
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 6: E. Bayshore & Donohoe Street

Movement	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	TR	UL	T	T	T
Maximum Queue (ft)	34	180	234	198	229	137	143	81
Average Queue (ft)	6	62	104	74	179	35	39	5
95th Queue (ft)	24	186	208	170	261	103	112	38
Link Distance (ft)	729	729	480	480	204	204	204	204
Upstream Blk Time (%)		0	0	0	12		0	0
Queuing Penalty (veh)		0	0	0	38		0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	270	302	303	386	400	371	135	282	306	247	256
Average Queue (ft)	191	254	243	355	377	98	51	187	204	103	133
95th Queue (ft)	299	343	344	382	394	290	103	265	282	208	220
Link Distance (ft)	237	237	237	349	349	349				1041	1041
Upstream Blk Time (%)	6	28	24	23	35	2					
Queuing Penalty (veh)	21	97	82	122	190	11					
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)								0	0	0	
Queuing Penalty (veh)								0	0	3	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	196	197	162	521	125	126	242	247	268	316	398	355
Average Queue (ft)	151	162	66	240	119	26	197	225	246	252	247	207
95th Queue (ft)	208	205	129	502	145	90	264	256	278	373	428	330
Link Distance (ft)	148	148	148	4715			160	160	188		349	349
Upstream Blk Time (%)	8	13	0			0	35	72	65		10	0
Queuing Penalty (veh)	17	30	1			0	142	294	526		38	1
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				2	53	0	48			35	1	
Queuing Penalty (veh)				5	37	0	12			101	1	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	223
Average Queue (ft)	101
95th Queue (ft)	180
Link Distance (ft)	349
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	131	182	122	147	95	149	200
Average Queue (ft)	41	64	45	57	17	69	105
95th Queue (ft)	99	143	100	120	65	128	178
Link Distance (ft)	212	212	148	148		1073	1073
Upstream Blk Time (%)	0	0	0	0			
Queuing Penalty (veh)	0	0	0	1			
Storage Bay Dist (ft)					75		
Storage Blk Time (%)				4	0		
Queuing Penalty (veh)				2	0		

Intersection: 10: Woodland Avenue & Manhattan Dr

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	109	116	120	85
Average Queue (ft)	58	52	59	42
95th Queue (ft)	91	88	102	71
Link Distance (ft)	184	212	212	1295
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	4	74
Average Queue (ft)	0	34
95th Queue (ft)	4	58
Link Distance (ft)	3256	728
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Woodland Ave & Crescent Dr

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	60	134	2027	49	252	266	267
Average Queue (ft)	14	60	1826	4	43	166	142
95th Queue (ft)	45	116	2516	26	171	282	289
Link Distance (ft)	1104	1312	2011		188	160	160
Upstream Blk Time (%)			38		1	8	4
Queuing Penalty (veh)			258		5	24	14
Storage Bay Dist (ft)				75			
Storage Blk Time (%)					2		
Queuing Penalty (veh)					0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17
Directions Served	R	R	T
Maximum Queue (ft)	507	491	397
Average Queue (ft)	139	115	43
95th Queue (ft)	544	503	693
Link Distance (ft)	1279	1279	8489
Upstream Blk Time (%)	2	1	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	138	568	731	77	103
Average Queue (ft)	44	119	240	6	19
95th Queue (ft)	105	449	647	40	64
Link Distance (ft)	293	1041	1041	94	94
Upstream Blk Time (%)		0	0	0	0
Queuing Penalty (veh)		1	1	0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 27: Woodland Ave

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	2875	19
Average Queue (ft)	1604	1
95th Queue (ft)	3589	12
Link Distance (ft)	2840	2011
Upstream Blk Time (%)	33	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	78
Average Queue (ft)	73
95th Queue (ft)	80
Link Distance (ft)	64
Upstream Blk Time (%)	29
Queuing Penalty (veh)	144
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	281	294
Average Queue (ft)	150	167
95th Queue (ft)	245	260
Link Distance (ft)	679	679
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	164	353	150	928	941	147	271	258
Average Queue (ft)	68	180	148	722	737	47	137	129
95th Queue (ft)	131	298	157	912	925	112	233	222
Link Distance (ft)	815	810		982	982		6487	6487
Upstream Blk Time (%)				0	0			
Queuing Penalty (veh)				2	2			
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)			93	16		0	9	
Queuing Penalty (veh)			923	25		1	4	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	134	125
Average Queue (ft)	22	20
95th Queue (ft)	110	102
Link Distance (ft)	4138	4138
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: O Connor St & E. Bayshore

Movement	NB	NB
Directions Served	T	T
Maximum Queue (ft)	2	1
Average Queue (ft)	0	0
95th Queue (ft)	3	2
Link Distance (ft)	565	565
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 58: US 101 NB On-Ramp

Movement	WB	B26	B26
Directions Served	T	T	
Maximum Queue (ft)	243	140	135
Average Queue (ft)	185	44	33
95th Queue (ft)	281	118	102
Link Distance (ft)	149	120	120
Upstream Blk Time (%)	32	1	1
Queuing Penalty (veh)	161	4	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 4494

1: Donohoe Street & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	478.6	470.7	0.0	0.0	0.3	0.2	269.3
Total Del/Veh (s)	404.3	464.3	4.2	2.7	37.5	34.0	247.1
Vehicles Entered	6	592	135	52	436	6	1227
Vehicles Exited	4	549	133	51	437	6	1180
Hourly Exit Rate	4	549	133	51	437	6	1180
Input Volume	8	829	146	53	438	6	1480
% of Volume	48	66	91	96	100	100	80
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	2	240	0	0	0	0	242

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	1.0	1.6	0.1	0.0	0.0	0.1	0.1	0.1	0.7
Total Del/Veh (s)	8.2	16.6	15.3	30.9	25.5	16.2	43.4	43.7	8.2	21.3
Vehicles Entered	12	600	430	536	192	147	4	6	4	1931
Vehicles Exited	11	596	428	536	194	148	4	6	4	1927
Hourly Exit Rate	11	596	428	536	194	148	4	6	4	1927
Input Volume	16	768	540	588	210	159	5	6	4	2296
% of Volume	68	78	79	91	92	93	80	96	107	84
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	64.3	58.5	47.1	61.5	75.7	22.8	34.4	31.3	13.0	217.2	192.6	166.1
Vehicles Entered	16	72	510	548	615	590	147	616	535	20	1039	97
Vehicles Exited	17	72	504	555	617	592	142	605	533	19	1037	96
Hourly Exit Rate	17	72	504	555	617	592	142	605	533	19	1037	96
Input Volume	20	94	647	644	650	602	178	740	648	26	1187	111
% of Volume	84	77	78	86	95	98	80	82	82	75	87	86
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	79.3
Vehicles Entered	4805
Vehicles Exited	4789
Hourly Exit Rate	4789
Input Volume	5547
% of Volume	86
Denied Entry Before	0
Denied Entry After	0

4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	21.0	39.6	15.2	54.7	7.1	15.3	63.8	9.9	34.4
Vehicles Entered	607	984	27	752	96	440	2	24	2932
Vehicles Exited	608	987	27	743	95	443	2	24	2929
Hourly Exit Rate	608	987	27	743	95	443	2	24	2929
Input Volume	743	1118	27	754	98	433	3	24	3200
% of Volume	82	88	99	99	96	102	67	100	92
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

5: Donohoe Street & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	SBL	SBR	All
Denied Del/Veh (s)	0.5	0.2	0.3	0.1	0.1	0.2	0.3	0.3
Total Del/Veh (s)	67.5	18.6	45.9	24.4	80.9	40.3	30.9	35.4
Vehicles Entered	268	799	594	39	3	100	408	2211
Vehicles Exited	267	802	597	40	3	100	405	2214
Hourly Exit Rate	267	802	597	40	3	100	405	2214
Input Volume	300	875	732	46	4	106	403	2466
% of Volume	89	92	82	86	80	95	100	90
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

6: E Bayshore Rd & Donohoe Street Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	44.3	96.7	313.8	80.6	34.8	4.7	92.8
Vehicles Entered	12	370	298	9	388	517	1594
Vehicles Exited	12	364	275	8	393	516	1568
Hourly Exit Rate	12	364	275	8	393	516	1568
Input Volume	12	376	410	10	429	556	1792
% of Volume	100	97	67	78	92	93	87
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.1
Total Del/Veh (s)	225.4	31.5	68.1	40.5	12.6	58.5	43.4	55.1
Vehicles Entered	239	6	429	1171	338	893	1539	4615
Vehicles Exited	229	6	432	1177	339	866	1511	4560
Hourly Exit Rate	229	6	432	1177	339	866	1511	4560
Input Volume	373	11	654	1298	383	1042	1763	5524
% of Volume	61	53	66	91	89	83	86	83
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	76.6	79.5	77.4	135.7	122.3	97.7	88.3	38.2	32.4	83.4	72.9	13.2
Vehicles Entered	414	103	65	13	124	253	68	812	9	160	1006	574
Vehicles Exited	421	105	66	13	125	249	67	810	9	155	992	576
Hourly Exit Rate	421	105	66	13	125	249	67	810	9	155	992	576
Input Volume	476	116	76	13	124	255	74	922	9	192	1239	705
% of Volume	88	91	87	100	101	98	91	88	100	81	80	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	60.9
Vehicles Entered	3601
Vehicles Exited	3588
Hourly Exit Rate	3588
Input Volume	4200
% of Volume	85
Denied Entry Before	0
Denied Entry After	0

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	31.7	61.1	4.4	2.2	63.2	29.9	28.9
Vehicles Entered	20	478	464	304	110	8	1384
Vehicles Exited	20	471	462	304	111	8	1376
Hourly Exit Rate	20	471	462	304	111	8	1376
Input Volume	22	561	553	350	107	7	1600
% of Volume	89	84	84	87	104	114	86
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

10: Manhattan Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	75.8	28.9	0.0	0.0	109.0	129.7	42.6
Total Del/Veh (s)	172.7	154.2	10.6	4.9	367.0	368.1	155.9
Vehicles Entered	3	250	291	154	292	12	1002
Vehicles Exited	3	239	293	155	258	11	959
Hourly Exit Rate	3	239	293	155	258	11	959
Input Volume	4	262	338	181	321	12	1118
% of Volume	75	91	87	86	80	90	86
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	5	0	0	27	1	33

11: Woodland Avenue & Euclid Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	20.0	19.1	2.6	2.4	98.4	87.0	31.4
Vehicles Entered	3	111	280	44	147	13	598
Vehicles Exited	3	108	280	44	140	13	588
Hourly Exit Rate	3	108	280	44	140	13	588
Input Volume	3	114	320	50	143	13	644
% of Volume	92	95	87	88	98	98	91
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: University Avenue & Crescent Drive Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	1565.3	756.2	1440.0		188.4	185.1	1.9	1.3	132.7
Vehicles Entered	2	6	56	0	963	4	1072	3	2106
Vehicles Exited	1	4	10	0	884	4	1076	3	1982
Hourly Exit Rate	1	4	10	0	884	4	1076	3	1982
Input Volume	3	6	58	1	948	3	1311	4	2334
% of Volume	31	62	17	0	93	133	82	75	85
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	295.3	3.8	117.1
Vehicles Entered	763	1209	1972
Vehicles Exited	675	1213	1888
Hourly Exit Rate	675	1213	1888
Input Volume	1039	1428	2467
% of Volume	65	85	77
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	23.2	13.6	19.0	2.1	8.7
Vehicles Entered	298	1298	331	2137	4064
Vehicles Exited	297	1298	331	2136	4062
Hourly Exit Rate	297	1298	331	2136	4062
Input Volume	296	1566	408	2508	4778
% of Volume	100	83	81	85	85
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

27: University Avenue Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	1.0	0.2	0.6
Total Del/Veh (s)	9.1	26.6	18.5
Vehicles Entered	967	1095	2062
Vehicles Exited	967	1078	2045
Hourly Exit Rate	967	1078	2045
Input Volume	952	1333	2285
% of Volume	102	81	89
Denied Entry Before	1	0	1
Denied Entry After	0	0	0

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	1.2	1.2
Vehicles Entered	985	985
Vehicles Exited	985	985
Hourly Exit Rate	985	985
Input Volume	1160	1160
% of Volume	85	85
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	1.1	1.1
Vehicles Entered	1213	1213
Vehicles Exited	1228	1228
Hourly Exit Rate	1228	1228
Input Volume	1428	1428
% of Volume	86	86
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.2	0.2	306.0	318.8	354.8	0.1	0.0	0.0	0.8	0.3	0.2
Total Del/Veh (s)	71.3	76.0	83.2	578.9	563.7	585.6	58.2	11.1	11.0	188.5	160.1	159.3
Vehicles Entered	12	68	46	119	80	10	18	1175	29	16	1100	10
Vehicles Exited	12	68	46	103	68	9	18	1189	29	14	1007	9
Hourly Exit Rate	12	68	46	103	68	9	18	1189	29	14	1007	9
Input Volume	11	67	48	165	105	14	20	1307	34	15	1110	9
% of Volume	109	101	96	62	65	64	90	91	85	93	91	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	44	29	4	0	0	0	0	0	0

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	32.6
Total Del/Veh (s)	122.6
Vehicles Entered	2683
Vehicles Exited	2572
Hourly Exit Rate	2572
Input Volume	2906
% of Volume	89
Denied Entry Before	0
Denied Entry After	77

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	0.4	0.4	0.4
Total Del/Veh (s)	11.0	6.9	7.6
Vehicles Entered	300	1288	1588
Vehicles Exited	300	1288	1588
Hourly Exit Rate	300	1288	1588
Input Volume	296	1285	1582
% of Volume	101	100	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

44: Donohoe Street/E Bayshore Rd & O Connor St Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	272.1	0.8	106.2
Vehicles Entered	340	537	877
Vehicles Exited	306	538	844
Hourly Exit Rate	306	538	844
Input Volume	420	579	999
% of Volume	73	93	84
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

57: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.3	0.3
Total Del/Veh (s)	5.5	5.5
Vehicles Entered	994	994
Vehicles Exited	992	992
Hourly Exit Rate	992	992
Input Volume	1166	1166
% of Volume	85	85
Denied Entry Before	0	0
Denied Entry After	0	0

Total Network Performance

Denied Del/Veh (s)	63.9
Total Del/Veh (s)	329.8
Vehicles Entered	8888
Vehicles Exited	8059
Hourly Exit Rate	8059
Input Volume	65699
% of Volume	12
Denied Entry Before	1
Denied Entry After	472

Intersection: 1: Donohoe Street & Euclid Ave

Movement	EB	EB	WB	WB	SB
Directions Served	LT	T	T	R	LR
Maximum Queue (ft)	275	2319	95	62	477
Average Queue (ft)	271	2182	20	14	229
95th Queue (ft)	318	2667	63	45	386
Link Distance (ft)		2267	199	199	3225
Upstream Blk Time (%)		84			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	3	85			
Queuing Penalty (veh)	10	358			

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	WB	SB
Directions Served	LT	TR	L	LT	TR	LTR
Maximum Queue (ft)	179	224	135	341	312	52
Average Queue (ft)	39	207	128	245	146	14
95th Queue (ft)	116	217	149	365	270	42
Link Distance (ft)	199	199		316	316	448
Upstream Blk Time (%)	0	19		2	0	
Queuing Penalty (veh)	1	121		7	1	
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			24	41		
Queuing Penalty (veh)			93	120		

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	L	L	T	TR	R	L	L	T	T
Maximum Queue (ft)	56	119	348	250	313	293	300	289	106	105	246	246
Average Queue (ft)	12	43	307	234	253	253	245	190	35	46	215	218
95th Queue (ft)	39	93	376	263	318	309	310	301	80	91	273	260
Link Distance (ft)		316	316		251	251	251	251	96	96	96	96
Upstream Blk Time (%)			11	5	8	34	19	2	0	1	32	29
Queuing Penalty (veh)			39	0	36	160	88	11	1	4	123	114
Storage Bay Dist (ft)	200			200								
Storage Blk Time (%)				21	10							29
Queuing Penalty (veh)				66	33							189

Intersection: 3: University Avenue & Donohoe Street

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	T	T	R
Maximum Queue (ft)	96	259	1020	1033	125
Average Queue (ft)	91	53	985	985	69
95th Queue (ft)	117	199	1059	1060	157
Link Distance (ft)			982	982	
Upstream Blk Time (%)	7		31	28	
Queuing Penalty (veh)	0		203	185	
Storage Bay Dist (ft)	100	235			100
Storage Blk Time (%)	7	0	70	66	0
Queuing Penalty (veh)	26	0	18	74	2

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe Street

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	264	265	296	286	212	171	658	607	230	401	26	50
Average Queue (ft)	136	101	268	123	88	67	310	235	28	130	3	13
95th Queue (ft)	249	207	310	260	166	135	662	615	124	279	16	39
Link Distance (ft)	251	251	262	262	262	262	956	956	956		514	514
Upstream Blk Time (%)	3	1	24	2	0		0	0				
Queuing Penalty (veh)	13	4	67	6	0		0	0				
Storage Bay Dist (ft)										500		
Storage Blk Time (%)									0	0		
Queuing Penalty (veh)									0	0		

Intersection: 5: Donohoe Street & Cooley Ave

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	T	TR	L	LT	LT	R
Maximum Queue (ft)	282	271	285	230	235	21	18	164	425
Average Queue (ft)	215	136	144	209	137	2	1	58	205
95th Queue (ft)	305	263	274	225	263	12	10	129	366
Link Distance (ft)	262	262	262	199	199	497	497	924	924
Upstream Blk Time (%)	10	2	2	44	10				
Queuing Penalty (veh)	38	6	7	171	40				
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 6: E Bayshore Rd & Donohoe Street

Movement	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	TR	UL	T	T	T
Maximum Queue (ft)	88	716	574	540	229	120	126	48
Average Queue (ft)	11	352	523	274	206	38	37	3
95th Queue (ft)	62	709	652	568	254	87	90	23
Link Distance (ft)	2169	2169	480	480	199	199	199	199
Upstream Blk Time (%)			85	10	20			
Queuing Penalty (veh)			179	20	49			
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	261	303	315	378	381	299	111	375	425	865	834
Average Queue (ft)	219	284	245	331	344	72	63	316	364	443	448
95th Queue (ft)	275	306	388	408	392	173	106	405	467	797	763
Link Distance (ft)	237	237	237	349	349	349				1034	1034
Upstream Blk Time (%)	6	79	42	6	14	0				0	0
Queuing Penalty (veh)	22	274	144	35	77	3				4	3
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)						0		5	9	15	
Queuing Penalty (veh)						0		44	82	156	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	174	183	165	696	125	144	222	230	293	320	374	381
Average Queue (ft)	149	160	128	358	117	78	169	206	267	227	348	349
95th Queue (ft)	190	179	194	849	149	153	235	245	312	386	391	394
Link Distance (ft)	156	156	156	5698			144	144	202		349	349
Upstream Blk Time (%)	34	57	25			1	24	52	46		28	27
Queuing Penalty (veh)	77	128	55			0	120	260	460		197	191
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				25	35	3	31			1	59	
Queuing Penalty (veh)				63	49	16	23			9	112	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	311
Average Queue (ft)	150
95th Queue (ft)	270
Link Distance (ft)	349
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	214	224	129	111	100	90	142
Average Queue (ft)	115	210	54	45	33	31	61
95th Queue (ft)	227	230	111	87	73	70	119
Link Distance (ft)	207	207	156	156		1048	1048
Upstream Blk Time (%)	3	51	0	0			
Queuing Penalty (veh)	9	148	0	0			
Storage Bay Dist (ft)					100		
Storage Blk Time (%)				0	0		
Queuing Penalty (veh)				0	0		

Intersection: 10: Manhattan Ave

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	387	151	94	1052
Average Queue (ft)	307	75	46	798
95th Queue (ft)	482	124	73	1325
Link Distance (ft)	376	207	207	1038
Upstream Blk Time (%)	29			46
Queuing Penalty (veh)	73			0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Avenue

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	155	2	363
Average Queue (ft)	36	0	149
95th Queue (ft)	126	2	392
Link Distance (ft)	2311	376	1194
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: University Avenue & Crescent Drive

Movement	EB	WB	NB	SB	B13	B13
Directions Served	LTR	LTR	LTR	TR	T	
Maximum Queue (ft)	120	1083	3196	255	277	277
Average Queue (ft)	49	548	1727	29	248	244
95th Queue (ft)	133	1113	3699	146	286	282
Link Distance (ft)	1080	2561	4352	202	144	144
Upstream Blk Time (%)			1	1	32	22
Queuing Penalty (veh)			7	9	211	143
Storage Bay Dist (ft)						
Storage Blk Time (%)				1		
Queuing Penalty (veh)				0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17	NE
Directions Served	R	R	T	R
Maximum Queue (ft)	1359	1355	4286	22
Average Queue (ft)	915	899	1596	1
95th Queue (ft)	1755	1748	4626	15
Link Distance (ft)	1279	1279	4248	237
Upstream Blk Time (%)	33	32	22	
Queuing Penalty (veh)	0	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	NB	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	250	122	430	594	127	135
Average Queue (ft)	122	5	87	232	18	26
95th Queue (ft)	216	60	297	505	72	86
Link Distance (ft)	306		1034	1034	96	96
Upstream Blk Time (%)	0			0	0	1
Queuing Penalty (veh)	0			0	3	7
Storage Bay Dist (ft)		175				
Storage Blk Time (%)			1			
Queuing Penalty (veh)			6			

Intersection: 27: University Avenue

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	140	57
Average Queue (ft)	31	4
95th Queue (ft)	309	34
Link Distance (ft)	2340	4352
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	NB
Directions Served	T
Maximum Queue (ft)	56
Average Queue (ft)	35
95th Queue (ft)	46
Link Distance (ft)	34
Upstream Blk Time (%)	5
Queuing Penalty (veh)	58
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	35	35
Average Queue (ft)	5	4
95th Queue (ft)	24	20
Link Distance (ft)	743	743
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	271	1028	118	308	324	150	1388	1369
Average Queue (ft)	115	844	24	149	173	37	776	765
95th Queue (ft)	229	1289	75	283	305	128	1548	1529
Link Distance (ft)	966	995		982	982		2505	2505
Upstream Blk Time (%)		65						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)				7		0	71	
Queuing Penalty (veh)				1		0	11	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	133	103
Average Queue (ft)	41	31
95th Queue (ft)	108	80
Link Distance (ft)	2146	2146
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: Donohoe Street/E Bayshore Rd & O Connor St

Movement	NB	NB	B42	B42
Directions Served	T	T	T	T
Maximum Queue (ft)	656	639	1225	1206
Average Queue (ft)	480	389	425	388
95th Queue (ft)	876	814	1195	1153
Link Distance (ft)	565	565	2484	2484
Upstream Blk Time (%)	62	27		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 57: US 101 NB On-Ramp

Movement	WB	B26	B26
Directions Served	T	T	
Maximum Queue (ft)	146	163	194
Average Queue (ft)	64	112	98
95th Queue (ft)	116	161	177
Link Distance (ft)	155	167	167
Upstream Blk Time (%)	0	0	0
Queuing Penalty (veh)	1	1	2
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 5977

1: Donohoe St & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.4	0.1	0.0	0.2	0.2	0.2
Total Del/Veh (s)	33.6	12.2	7.8	3.9	123.5	123.4	20.5
Vehicles Entered	17	308	612	171	95	31	1234
Vehicles Exited	17	308	612	171	91	29	1228
Hourly Exit Rate	17	308	612	171	91	29	1228
Input Volume	16	315	802	213	95	25	1468
% of Volume	105	98	76	80	96	115	84
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

2: US 101 NB On-Ramp & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.3	0.0	0.0	0.5	0.8	0.9	0.2
Total Del/Veh (s)	84.4	45.4	21.7	18.8	15.3	9.6	48.9	48.3	28.5	23.5
Vehicles Entered	2	304	99	556	755	22	50	44	39	1871
Vehicles Exited	2	302	99	556	758	22	49	44	39	1871
Hourly Exit Rate	2	302	99	556	758	22	49	44	39	1871
Input Volume	3	316	99	748	1001	26	50	44	39	2327
% of Volume	67	95	100	74	76	84	98	99	99	80
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

3: University Avenue & Donohoe Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	10.3	9.5	0.0	0.4	0.2	0.3	0.2	0.7	0.4	3.0	1.5
Total Del/Veh (s)	357.9	198.9	4.7	32.5	81.2	48.0	32.5	24.1	24.9	195.5	215.5	162.0
Vehicles Entered	33	121	200	295	700	542	350	696	729	45	785	252
Vehicles Exited	32	114	200	299	697	546	350	694	727	44	774	250
Hourly Exit Rate	32	114	200	299	697	546	350	694	727	44	774	250
Input Volume	39	123	205	486	946	704	458	917	999	65	1059	334
% of Volume	83	92	97	61	74	78	76	76	73	67	73	75
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	1	0	0	0	0	0	0	0	2	0

3: University Avenue & Donohoe Street Performance by movement

Movement	All
Denied Del/Veh (s)	1.5
Total Del/Veh (s)	84.1
Vehicles Entered	4748
Vehicles Exited	4727
Hourly Exit Rate	4727
Input Volume	6335
% of Volume	75
Denied Entry Before	0
Denied Entry After	3

4: US 101 NB Off Ramp/Capitol Ave & Donohoe St Performance by movement

Movement	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	1.1	0.0	0.4	0.0	1.9	0.1	0.1	0.8
Total Del/Veh (s)	40.7	112.0	22.2	142.4	107.1	169.8	54.5	14.5	108.6
Vehicles Entered	879	684	12	785	22	628	9	79	3098
Vehicles Exited	876	672	13	785	22	602	9	78	3057
Hourly Exit Rate	876	672	13	785	22	602	9	78	3057
Input Volume	1182	1082	21	977	28	779	10	80	4159
% of Volume	74	62	63	80	77	77	88	97	73
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	1	0	0	1

5: Donohoe St & Cooley Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.1	1.1	0.1	7.5	13.2	6.2	0.2	0.2	0.7
Total Del/Veh (s)	40.0	19.9	100.9	71.7	55.4	55.8	10.9	39.8	45.2	43.8
Vehicles Entered	434	1069	421	88	93	14	27	92	181	2419
Vehicles Exited	433	1067	417	88	93	14	28	92	179	2411
Hourly Exit Rate	433	1067	417	88	93	14	28	92	179	2411
Input Volume	576	1408	821	155	93	14	25	88	182	3363
% of Volume	75	76	51	57	100	98	111	104	98	72
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

6: E. Bayshore & Donohoe Street Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	1127.0	981.8	4.3	0.8	0.1	0.0	167.9
Total Del/Veh (s)	108.5	879.2	260.8	153.6	28.6	5.6	139.6
Vehicles Entered	3	118	450	24	420	755	1770
Vehicles Exited	3	92	421	23	420	756	1715
Hourly Exit Rate	3	92	421	23	420	756	1715
Input Volume	9	340	639	33	549	960	2529
% of Volume	33	27	66	70	77	79	68
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	4	212	2	0	0	0	218

7: University Avenue & US 101 SB Off-Ramp Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	81.3	29.5	63.9	56.6	16.7	68.9	16.2	50.7
Vehicles Entered	350	6	808	1109	263	801	987	4324
Vehicles Exited	344	6	804	1124	259	796	994	4327
Hourly Exit Rate	344	6	804	1124	259	796	994	4327
Input Volume	434	5	983	1574	377	1092	1294	5758
% of Volume	79	126	82	71	69	73	77	75
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.0	0.3	0.3	0.3	12.5	16.9	36.7	3.2	1.5	2.2
Total Del/Veh (s)	33.9	29.4	20.5	312.5	344.6	337.2	123.6	116.7	111.7	102.5	56.0	12.9
Vehicles Entered	656	96	69	15	65	372	20	397	8	226	719	433
Vehicles Exited	659	96	70	13	57	324	20	393	8	230	710	433
Hourly Exit Rate	659	96	70	13	57	324	20	393	8	230	710	433
Input Volume	675	97	73	15	72	362	47	948	16	287	931	549
% of Volume	98	99	96	85	79	89	42	41	49	80	76	79
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	4	0	0	0	0

8: Woodland Avenue & University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	3.3
Total Del/Veh (s)	98.9
Vehicles Entered	3076
Vehicles Exited	3013
Hourly Exit Rate	3013
Input Volume	4072
% of Volume	74
Denied Entry Before	0
Denied Entry After	4

9: Woodland Avenue & University Circle Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.6	0.4	0.2
Total Del/Veh (s)	20.7	15.5	8.7	3.4	244.8	288.0	73.4
Vehicles Entered	9	514	466	65	342	14	1410
Vehicles Exited	9	513	466	65	323	13	1389
Hourly Exit Rate	9	513	466	65	323	13	1389
Input Volume	9	515	594	92	342	16	1568
% of Volume	97	100	78	71	94	83	89
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	0	1

10: Woodland Avenue & Manhattan Dr Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	7.0	9.1	12.0	6.6	6.0	4.4	8.5
Vehicles Entered	11	292	257	207	227	15	1009
Vehicles Exited	11	292	256	206	228	15	1008
Hourly Exit Rate	11	292	256	206	228	15	1008
Input Volume	11	289	324	269	233	13	1139
% of Volume	102	101	79	77	98	115	88
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

11: Woodland Avenue & Euclid Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	1.5	2.1	1.9	1.7	7.8	4.5	2.9
Vehicles Entered	1	201	223	57	87	14	583
Vehicles Exited	1	202	223	57	87	14	584
Hourly Exit Rate	1	202	223	57	87	14	584
Input Volume	1	198	278	70	87	12	646
% of Volume	100	102	80	81	100	114	90
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

12: Woodland Ave & Crescent Dr Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2		171.4	0.0	0.2	0.1	0.0	54.4
Total Del/Veh (s)	232.1	61.0	83.2		665.4	689.5	18.9	2.1	1.8	227.1
Vehicles Entered	4	9	68	0	374	1	8	777	4	1245
Vehicles Exited	3	8	66	0	342	1	8	781	4	1213
Hourly Exit Rate	3	8	66	0	342	1	8	781	4	1213
Input Volume	4	8	65	1	940	3	10	970	4	2005
% of Volume	80	103	102	0	36	31	78	81	94	61
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	30	0	0	0	0	30

14: US 101 SB Off-Ramp Performance by movement

Movement	SBR	NET	NER	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	220.4	2.4	4.0	121.7
Vehicles Entered	1235	1	1054	2290
Vehicles Exited	1161	1	1049	2211
Hourly Exit Rate	1161	1	1049	2211
Input Volume	1417	1	1469	2887
% of Volume	82	100	71	77
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp Performance by move

Movement	EBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	5.2	29.0	52.3	2.5	17.5
Vehicles Entered	516	1790	139	1276	3721
Vehicles Exited	518	1766	133	1276	3693
Hourly Exit Rate	518	1766	133	1276	3693
Input Volume	644	2362	195	1752	4952
% of Volume	80	75	68	73	75
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

27: Woodland Ave Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	666.3	0.1	354.4
Total Del/Veh (s)	716.9	10.9	276.0
Vehicles Entered	474	803	1277
Vehicles Exited	371	797	1168
Hourly Exit Rate	371	797	1168
Input Volume	910	989	1900
% of Volume	41	81	61
Denied Entry Before	0	0	0
Denied Entry After	438	0	438

28: US 101 NB On-Ramp Performance by movement

Movement	NBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	0.6	0.6
Vehicles Entered	708	708
Vehicles Exited	708	708
Hourly Exit Rate	708	708
Input Volume	891	891
% of Volume	79	79
Denied Entry Before	0	0
Denied Entry After	0	0

32: US 101 SB On-Ramp Meter Performance by movement

Movement	SBT	All
Denied Del/Veh (s)	0.0	0.0
Total Del/Veh (s)	1.4	1.4
Vehicles Entered	1049	1049
Vehicles Exited	1062	1062
Hourly Exit Rate	1062	1062
Input Volume	1469	1469
% of Volume	72	72
Denied Entry Before	0	0
Denied Entry After	0	0

36: University Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	0.3	1.2	1.4	0.7	66.1	63.0	60.3	0.3	0.2	0.2
Total Del/Veh (s)	30.5	27.1	23.3	114.4	111.8	115.1	78.8	58.6	57.6	517.5	492.0	478.2
Vehicles Entered	30	115	19	135	162	35	156	1624	114	52	1276	43
Vehicles Exited	31	116	19	134	160	34	156	1604	112	38	921	32
Hourly Exit Rate	31	116	19	134	160	34	156	1604	112	38	921	32
Input Volume	33	112	20	140	167	33	194	2000	141	55	1289	40
% of Volume	94	103	96	96	96	103	81	80	79	69	71	80
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	3	40	3	0	1	0

36: University Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	32.3
Total Del/Veh (s)	224.0
Vehicles Entered	3761
Vehicles Exited	3357
Hourly Exit Rate	3357
Input Volume	4224
% of Volume	79
Denied Entry Before	0
Denied Entry After	47

39: US 101 NB Off Ramp/Capitol Ave Performance by movement

Movement	WBT	WBR	All
Denied Del/Veh (s)	97.8	96.4	96.8
Total Del/Veh (s)	267.9	269.9	269.4
Vehicles Entered	567	1597	2164
Vehicles Exited	513	1432	1945
Hourly Exit Rate	513	1432	1945
Input Volume	644	1779	2422
% of Volume	80	81	80
Denied Entry Before	0	0	0
Denied Entry After	62	181	243

44: O Connor St & E. Bayshore Performance by movement

Movement	NBT	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	231.0	1.6	94.2
Vehicles Entered	513	761	1274
Vehicles Exited	470	762	1232
Hourly Exit Rate	470	762	1232
Input Volume	666	972	1638
% of Volume	71	78	75
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

58: US 101 NB On-Ramp Performance by movement

Movement	WBT	All
Denied Del/Veh (s)	0.2	0.2
Total Del/Veh (s)	4.1	4.1
Vehicles Entered	728	728
Vehicles Exited	728	728
Hourly Exit Rate	728	728
Input Volume	918	918
% of Volume	79	79
Denied Entry Before	0	0
Denied Entry After	0	0

Total Network Performance

Denied Del/Veh (s)	124.7
Total Del/Veh (s)	444.0
Vehicles Entered	10223
Vehicles Exited	8789
Hourly Exit Rate	8789
Input Volume	74054
% of Volume	12
Denied Entry Before	1
Denied Entry After	993

Arterial Level of Service: WB Donohoe Street

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	6	108.5	2757.0	0.1	4
Total		108.5	2757.0	0.1	4

Arterial Level of Service: NB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 101 SB Off-Ramp	7	58.5	70.1	0.1	4
US 101 NB Loop On-Ra	15	31.9	58.1	0.2	13
Donohoe Street	3	24.1	29.2	0.1	6
	36	56.9	165.2	0.2	10
Total		171.3	322.6	0.5	9

Arterial Level of Service: SB University Avenue

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	36	492.0	618.4	1.2	7
Donohoe Street	3	215.7	241.3	0.2	3
US 101 NB Loop Off-R	15	3.2	8.7	0.1	21
US 101 SB Off-Ramp	7	15.8	46.5	0.2	17
Woodland Avenue	8	56.3	69.8	0.1	4
Total		782.9	984.6	1.8	7

Intersection: 1: Donohoe St & Euclid Ave

Movement	EB	EB	WB	WB	SB
Directions Served	LT	T	T	R	LR
Maximum Queue (ft)	143	153	240	172	350
Average Queue (ft)	44	44	67	35	153
95th Queue (ft)	122	123	184	119	479
Link Distance (ft)		2624	194	194	1322
Upstream Blk Time (%)			1	0	
Queuing Penalty (veh)			4	1	
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Intersection: 2: US 101 NB On-Ramp & Donohoe Street

Movement	EB	EB	WB	WB	WB	SB
Directions Served	LT	TR	L	LT	TR	LTR
Maximum Queue (ft)	198	216	134	358	328	159
Average Queue (ft)	92	128	84	175	156	90
95th Queue (ft)	199	218	154	300	292	151
Link Distance (ft)	194	194		319	319	146
Upstream Blk Time (%)	10	6		1	1	3
Queuing Penalty (veh)	20	12		8	5	0
Storage Bay Dist (ft)			75			
Storage Blk Time (%)			10	33		
Queuing Penalty (veh)			83	123		

Intersection: 3: University Avenue & Donohoe Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	L	L	T	TR	R	L	L	T	T
Maximum Queue (ft)	260	329	86	223	209	298	299	284	227	116	239	253
Average Queue (ft)	107	201	26	125	79	276	272	212	101	80	184	222
95th Queue (ft)	263	393	64	215	160	290	289	318	192	127	270	261
Link Distance (ft)		319	319		256	256	256	256	106	106	106	106
Upstream Blk Time (%)		22		0	0	50	45	7	7	4	26	36
Queuing Penalty (veh)		40		0	0	264	241	36	42	25	150	211
Storage Bay Dist (ft)	200			200								
Storage Blk Time (%)	11	35		2	0							36
Queuing Penalty (veh)	12	14		5	1							357

Intersection: 3: University Avenue & Donohoe Street

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	T	T	R
Maximum Queue (ft)	106	260	1014	1030	125
Average Queue (ft)	105	118	975	975	118
95th Queue (ft)	109	315	1074	1091	150
Link Distance (ft)			982	982	
Upstream Blk Time (%)	37		16	13	
Queuing Penalty (veh)	0		118	93	
Storage Bay Dist (ft)	200	235			100
Storage Blk Time (%)	37	0	78	56	14
Queuing Penalty (veh)	166	0	51	186	71

Intersection: 4: US 101 NB Off Ramp/Capitol Ave & Donohoe St

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	T	T	T	T	T	TR	L	L	T	R	L	R
Maximum Queue (ft)	296	303	292	290	288	292	964	1082	1126	300	44	93
Average Queue (ft)	249	233	146	246	241	197	640	816	984	298	10	38
95th Queue (ft)	314	322	309	322	315	350	1082	1299	1413	318	36	78
Link Distance (ft)	256	256	258	258	258	258	956	956	956		670	670
Upstream Blk Time (%)	17	12	4	24	24	15	3	9	60			
Queuing Penalty (veh)	103	69	11	67	66	42	19	55	359			
Storage Bay Dist (ft)										100		
Storage Blk Time (%)										66		
Queuing Penalty (veh)										15		

Intersection: 5: Donohoe St & Cooley Ave

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	T	TR	L	LT	R	LT	R
Maximum Queue (ft)	280	272	282	239	255	82	84	64	144	386
Average Queue (ft)	248	161	237	214	202	30	51	20	56	114
95th Queue (ft)	307	277	321	229	268	72	89	51	116	282
Link Distance (ft)	258	258	258	204	204	64	64	64	851	851
Upstream Blk Time (%)	14	2	10	70	44	7	17	0		
Queuing Penalty (veh)	92	10	67	340	218	0	0	0		
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 6: E. Bayshore & Donohoe Street

Movement	WB	WB	NB	NB	SB	SB	SB	SB
Directions Served	L	R	T	TR	UL	T	T	T
Maximum Queue (ft)	748	765	574	571	231	147	164	82
Average Queue (ft)	560	679	492	466	190	70	71	10
95th Queue (ft)	1075	935	703	718	265	134	143	48
Link Distance (ft)	729	729	480	480	204	204	204	204
Upstream Blk Time (%)	73	82	79	58	11	0	0	
Queuing Penalty (veh)	0	0	267	194	42	0	0	
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: University Avenue & US 101 SB Off-Ramp

Movement	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LR	R	T	T	R	R	L	L	T	T
Maximum Queue (ft)	270	317	323	387	401	389	174	374	424	720	485
Average Queue (ft)	224	290	293	359	378	116	74	310	338	260	187
95th Queue (ft)	286	303	309	382	394	305	134	410	459	650	380
Link Distance (ft)	234	234	234	349	349	349				1041	1041
Upstream Blk Time (%)	3	71	77	29	39	3				0	
Queuing Penalty (veh)	12	336	363	189	256	17				2	
Storage Bay Dist (ft)							200	325	325		
Storage Blk Time (%)								6	15	1	
Queuing Penalty (veh)								40	95	13	

Intersection: 8: Woodland Avenue & University Avenue

Movement	EB	EB	EB	WB	WB	NB	NB	NB	B13	SB	SB	SB
Directions Served	L	L	TR	LT	R	L	T	TR	T	UL	T	T
Maximum Queue (ft)	198	206	183	1998	125	141	246	255	262	320	377	359
Average Queue (ft)	177	183	84	1179	125	34	189	228	242	237	279	270
95th Queue (ft)	208	198	159	2265	125	105	265	259	271	367	417	392
Link Distance (ft)	148	148	148	4715			160	160	188		349	349
Upstream Blk Time (%)	27	31	2			0	33	78	72		8	5
Queuing Penalty (veh)	75	86	5			0	164	382	706		48	30
Storage Bay Dist (ft)					100	125				250		
Storage Blk Time (%)				5	88		47			22	15	
Queuing Penalty (veh)				17	76		22			100	44	

Intersection: 8: Woodland Avenue & University Avenue

Movement	SB
Directions Served	R
Maximum Queue (ft)	257
Average Queue (ft)	129
95th Queue (ft)	226
Link Distance (ft)	349
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Woodland Avenue & University Circle

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	LT	T	T	TR	R	L	LR
Maximum Queue (ft)	181	208	150	161	99	668	693
Average Queue (ft)	81	119	76	73	23	365	441
95th Queue (ft)	151	193	138	142	79	769	830
Link Distance (ft)	212	212	148	148		1073	1073
Upstream Blk Time (%)	0	0	0	1		0	1
Queuing Penalty (veh)	0	1	1	2		0	0
Storage Bay Dist (ft)					75		
Storage Blk Time (%)				7	0		
Queuing Penalty (veh)				3	0		

Intersection: 10: Woodland Avenue & Manhattan Dr

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	157	171	130	109
Average Queue (ft)	67	83	67	50
95th Queue (ft)	118	142	110	87
Link Distance (ft)	184	212	212	1295
Upstream Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Woodland Avenue & Euclid Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	16	73
Average Queue (ft)	1	35
95th Queue (ft)	11	59
Link Distance (ft)	3256	728
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Woodland Ave & Crescent Dr

Movement	EB	WB	NB	SB	SB	B13	B13
Directions Served	LTR	LTR	LTR	L	TR	T	
Maximum Queue (ft)	64	178	2027	36	252	282	274
Average Queue (ft)	18	73	2001	4	45	230	213
95th Queue (ft)	55	150	2156	20	177	318	327
Link Distance (ft)	1104	1312	2011		188	160	160
Upstream Blk Time (%)			57		1	18	12
Queuing Penalty (veh)			523		7	89	60
Storage Bay Dist (ft)				75			
Storage Blk Time (%)					2		
Queuing Penalty (veh)					0		

Intersection: 14: US 101 SB Off-Ramp

Movement	SB	SB	B17	NE
Directions Served	R	R	T	R
Maximum Queue (ft)	1369	1353	7263	2
Average Queue (ft)	1153	1140	2731	0
95th Queue (ft)	1708	1707	7305	2
Link Distance (ft)	1278	1278	8489	234
Upstream Blk Time (%)	31	24	2	
Queuing Penalty (veh)	0	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: University Avenue & US 101 NB Loop Off-Ramp & US 101 NB Loop On-Ramp

Movement	EB	B46	NB	NB	NB	SB	SB
Directions Served	R	T	T	T	TR	T	T
Maximum Queue (ft)	199	745	159	882	929	100	113
Average Queue (ft)	83	90	10	294	474	7	22
95th Queue (ft)	170	674	79	860	1057	48	69
Link Distance (ft)	305	1354		1041	1041	106	106
Upstream Blk Time (%)				0	1	0	0
Queuing Penalty (veh)				4	13	1	2
Storage Bay Dist (ft)			150				
Storage Blk Time (%)			0	1			
Queuing Penalty (veh)			1	10			

Intersection: 27: Woodland Ave

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	2883	22
Average Queue (ft)	2415	1
95th Queue (ft)	3881	16
Link Distance (ft)	2840	2011
Upstream Blk Time (%)	74	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: US 101 NB On-Ramp

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: US 101 SB On-Ramp Meter

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	35	51
Average Queue (ft)	9	16
95th Queue (ft)	29	41
Link Distance (ft)	488	488
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 36: University Avenue

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	185	657	150	768	770	150	5116	5114
Average Queue (ft)	83	355	117	594	608	80	2547	2549
95th Queue (ft)	148	699	183	755	775	184	5190	5208
Link Distance (ft)	815	810		982	982		6487	6487
Upstream Blk Time (%)		3					0	0
Queuing Penalty (veh)		0					0	0
Storage Bay Dist (ft)			125			125		
Storage Blk Time (%)			6	43		0	77	
Queuing Penalty (veh)			62	83		2	42	

Intersection: 39: US 101 NB Off Ramp/Capitol Ave

Movement	WB	WB
Directions Served	TR	R
Maximum Queue (ft)	4189	4186
Average Queue (ft)	2685	2668
95th Queue (ft)	5462	5479
Link Distance (ft)	4138	4138
Upstream Blk Time (%)	43	44
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 44: O Connor St & E. Bayshore

Movement	NB	NB	B42	B42	SB
Directions Served	T	T	T	T	T
Maximum Queue (ft)	653	667	1973	1979	59
Average Queue (ft)	452	440	680	673	2
95th Queue (ft)	888	887	1999	1997	60
Link Distance (ft)	565	565	9213	9213	480
Upstream Blk Time (%)	62	56			0
Queuing Penalty (veh)	0	0			0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 58: US 101 NB On-Ramp

Movement	B26	B26
Directions Served	T	
Maximum Queue (ft)	102	97
Average Queue (ft)	21	13
95th Queue (ft)	71	57
Link Distance (ft)	120	120
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 8361

Appendix C

Acoustical Analysis

Kimley»Horn

MEMORANDUM

To: Ami Upadhyay, Contract Planner, City of East Palo Alto

From: Ace Malisos, Air Quality and Noise Manager, Kimley-Horn
Noemi Wyss AICP, Environmental Planner, Kimley-Horn
Kimley-Horn and Associates, Inc.

Date: December 14, 2020

Subject: KIPP Esperanza High School Project – Acoustical Analysis

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1.0 PURPOSE

The purpose of this memorandum is to identify the acoustical impacts associated with construction and operations of the proposed KIPP Esperanza High School Project (project), located in the City of East Palo Alto, California. This analysis has been undertaken to analyze whether the proposed project would result in any significant environmental impacts as compared to the conclusions discussed in the certified Mitigated Negative Declaration (MND) for the East Palo Alto Phoenix Academy adopted in August, 2010 (Approved Project).

2.0 PROPOSED PROJECT DESCRIPTION

The proposed project is in the City of East Palo Alto (City) in southeastern portion of San Mateo County, California. The project site is on two parcels (APN 063-341-130 and 063-341-150), located at 1039 and 1063 Garden Street, approximately mid-block between Clarke Avenue and Pulgas Avenue. See **Figure 1, Project Location.**

The project site is now developed with the previously approved school (Phoenix Academy), permitted for 411 students grades 6-12. The overall project site is flat and previously graded. The project site is surrounded on three sides by existing single-family residential development. Immediately north of the school site are two vacant parcels accessed from Runnymede Street. Adjacent to the site is a separately owned parcel currently used as the Canaan Church Prayer Center.

The project proposes to operate a public charter high school (KIPP Esperanza High School) ultimately serving up to 650 students in grades 9-12. The school is planning to open in August 2020 with 180 students and will expand enrollment to 650 over a four-year period. There would be 16 full time employees when the school opens and 44 at full enrollment. Four additional classrooms (approximately 4,000 square feet) are proposed to be added during this timeline to accommodate the additional student population (Phase 2). For analysis purposes, this document assumes full buildout

of Phase 2 classrooms as proposed. Basic parking, access, and circulation through the campus would remain the same as it functions today.

Construction of the proposed project is anticipated to take approximately three months. Construction of the new Phase 2 classroom facilities would entail limited site preparation, removal and disposal of existing hard surfaces, construction staging, connection to existing utilities and foundation setting. The classroom construction would consist of modular buildings, similar to the existing buildings on the site. These buildings are prefabricated and assembled off site, moved to the site for final assembly, and attached to the foundation. This construction type limits the construction time, amount of traditional construction equipment and material staging required.

3.0 THRESHOLDS AND SIGNIFICANCE CRITERIA

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a Project normally would have a significant effect on the environment if it would:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generate excessive groundborne vibration or groundborne noise levels; or
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

4.0 IMPACT ANALYSIS

4.1 Acoustical Analysis

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

Construction

Construction-related activities would temporarily increase ambient noise levels in the proposed project vicinity. Construction-related noise levels at and near the project site would fluctuate depending on the level and type of construction activity on a given day. During construction, exterior noise levels could affect the Canaan Church Prayer Center located adjacent to the project site and single-family residence 50 feet to the west and east of the construction site. Project construction would occur approximately 50 feet from existing single-family residences adjacent to the west. However, construction activities would occur throughout the project site and would not be concentrated at a single point near sensitive receptors. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery. During

construction, exterior noise levels could affect the residential neighborhoods near the construction site.

Construction activities associated with development of the project would include demolition, site preparation, grading, paving, building construction, and architectural coating. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. However, because the four classroom buildings are prefabricated and assembled off-site, the construction time, amount of construction equipment, and material staging would be limited.

Grading and excavation phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Equipment typically used during this stage includes heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, and scrapers. Operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Other primary sources of noise would be shorter-duration incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts, which would last less than one minute.

The City of East Palo Alto does not have construction noise standards. Construction noise levels at the project site would range between 76 dBA and 88 dBA at the sensitive receptors approximately 50 feet west.[1] The highest anticipated construction noise level of 88 dBA is expected to occur during the demolition phase (jack hammer). Additionally, the majority of construction would occur throughout the project site and would not be concentrated at a single point near sensitive receptors. The project construction would comply with Section 8.52.350, stating construction hours are limited to the hours of 7:00 a.m. to 8:00 p.m.

Sensitive receptors near the project site include: Canaan Church Prayer Center located adjacent to the project site and single-family residence 50 feet to the west and east of the project site. These distances are from the project site to the sensitive receptor property line. These sensitive uses may be exposed to elevated noise levels during project construction. Construction activities would be limited to daytime hours when people would be out of their houses and would conform to the time-of-day restrictions of the City's Municipal Code. The proposed project would be required to adhere to the Standard Permit Conditions which would ensure that all construction equipment is equipped with properly operating and maintained mufflers and other state required noise attenuation devices, helping to reduce noise at the source. The Standard Permit Conditions are required to ensure that construction noise levels do not exceed the City's standards and that time-of-day restrictions are adhered to. General Plan Policy 7.11 Construction Noise states a significant construction noise impact

[1] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

is if a project located within 500 feet of residential uses would involve substantial noise generating activities for more than 12 months. The proposed project would have minor demolition, minor grading and excavation, no pile-driving or impact equipment and would last less than 12 months. Therefore, with implementation of these conditions, construction noise impacts to nearby receptors would be less than significant.

Construction Traffic Noise

Construction noise may be generated by large trucks moving materials to and from the project site. Large trucks would be necessary to deliver building materials as well as remove dump materials. However, excavation and cut and fill would not be required for the proposed project. Based on the California Emissions Estimator Model (CalEEMod) default assumptions for this project, as analyzed in KIPP Esperanza High School Project Air Quality and Greenhouse Gas Emissions Analysis, the project would generate the highest number of daily trips during the demolition phase. The model estimates that the project would generate up to 10 worker trips and 46 hauling trips per day for demolition. For paving, the model estimates approximately 18 daily worker trips. Because of the logarithmic nature of noise levels, a doubling of the traffic volume (assuming that the speed and vehicle mix do not also change) would result in a noise level increase of 3 dBA. Therefore, 56 project construction trips (10 worker trips plus 46 hauling trips) would not double the existing traffic volume per day. Construction related traffic noise would not be noticeable and would not create a significant noise impact.

Operation

As discussed above, the closest sensitive receptors are single-family residences located 50 feet to the west of the project site and the Canaan Church Prayer Center located adjacent to the project site. The City of East Palo Alto stationary source Exterior Noise Standards for residential areas is 65 dB CNEL. The land use compatibility standard for residential areas is 50 dBA CNEL to 60 dBA CNEL for clearly compatible conditions and 60 dBA CNEL to 70 dBA CNEL for conditionally acceptable conditions. According to the General Plan, Pulgas Avenue west of the project site has existing noise levels of between 65 dB and 70 dB. However, the project site is located within the 60 dB and 65 dB traffic noise contour for the City. Therefore, existing noise levels at the project site do not exceed the City standard of 60 CNEL.

Traffic Noise

Implementation of the project would generate increased traffic volumes along study roadway segments. The project is expected to generate gross total of 1,060 daily vehicle trips, which would result in noise increases on project area roadways. In general, a traffic noise increase of less than 3 dBA is barely perceptible to people, while a 5-dBA increase is readily noticeable (Caltrans, *Technical Supplement to the Traffic Noise Analysis Protocol*, 2013). Generally, traffic volumes on project area roadways would have to approximately double for the resulting traffic noise levels to increase by 3 dBA. Therefore, permanent increases in ambient noise levels of less than 3 dBA are considered to be less than significant.

According to the General Plan EIR, the closest study roadway to the proposed project is Runnymede Street which is designated as a local street and has an average daily traffic (ADT) volume of approximately 12,500 vehicles.[2] Therefore, the additional project trips would not generate a noticeable difference in traffic noise levels. Project traffic would traverse and disperse over project area roadways, where existing ambient noise levels already exist. Future development associated with the project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise near existing and proposed land uses. This level is below the perceptible noise level change of 3.0 dBA. Therefore, impacts would be less than significant.

Stationary Noise Sources

Implementation of the project would create new sources of noise in the project vicinity from school operations, mechanical equipment, parking lot noise, and landscape maintenance.

School Operations

Noise that is typical associated with the proposed school operations would include noise associated with students leaving and entering classes during recesses and after-school hours. All other school-related activities would occur within the proposed structures and would not involve potential for noise effects on surrounding land uses. Noise from associated school operations would primarily occur during the "daytime" activity hours of 7:00 a.m. to 7:00 p.m. The project site is an existing school, therefore the noise associated with school operations is part of the ambient noise. The additional students anticipated from the proposed project would not significantly increase noise levels. Impacts from school operations would be less than significant.

Mechanical Equipment

Regarding mechanical equipment, the project would generate stationary-source noise associated with heating, ventilation, and air conditioning (HVAC) units. HVAC units typically generate noise levels of approximately 52 dBA at 50 feet.[3] The nearest existing sensitive receptor's property lines are located approximately 50 feet from the closest potential proposed building. This noise level is below the City's 65 dBA exterior standard. The project would not place mechanical equipment near residential uses, and noise from this equipment would not be perceptible at the closest sensitive receptor (existing single-family residences adjoining the project site). Impacts from mechanical equipment would be less than significant.

Parking Areas

Traffic associated with parking areas is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the

[2] The 12,500 ADT is between Cooley Avenue and Clarke Avenue, northeast of the Project site. No ADT volumes adjacent to the Project site are provided.

[3] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden. (2010). *Noise Navigator Sound Level Database with Over 1700 Measurement Values*.

instantaneous maximum sound levels generated by a car door slamming, engine starting up and car pass-bys range from 53 to 61 dBA [4] and may be an annoyance to adjacent noise-sensitive receptors. Parking lot noise can also be considered a "stationary" noise source.

Conversations in parking areas may also be an annoyance to sensitive receptors. Sound levels of speech typically range from 33 dBA at 48 feet for normal speech to 50 dBA at 50 feet for very loud speech. [5] It should be noted that parking lot noise are instantaneous noise levels compared to noise standards in the CNEL scale, which are averaged over time. As a result, actual noise levels over time resulting from parking lot activities would be far lower.

The existing project includes a surface parking lot on-site. The proposed project would utilize the existing parking lot and would not construct a new parking area. Noise impacts associated with parking would be a maximum of 61 dBA. In addition, parking lot noise would also be partially masked by the background noise from traffic along Garden Street. Noise associated with parking lot activities is not anticipated to exceed the City's Noise Standards or the California Land use Compatibility Standards during operation. Therefore, noise impacts from parking lots would be less than significant.

Landscape Maintenance Activities

Development and operation of the project includes new landscaping that would require periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 56 dBA at a distance of 25 feet. Landscape Maintenance activities would be 50 dBA at the closest sensitive receptor approximately 50 feet away. Noise from landscaping equipment is generated at the surrounding uses under existing conditions. Maintenance activities would operate during daytime hours for brief periods of time as allowed by the City Municipal Code and would not permanently increase ambient noise levels in the project vicinity and would be consistent with activities that currently occur at the surrounding uses. Therefore, with adherence to the City's Municipal Code, impacts associated with landscape maintenance would be less than significant.

Mitigation Measure: Compliance with General Plan Policies and applicable state and local law would reduce impacts to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant impact.

Threshold (b) Generate excessive groundborne vibration or groundborne noise levels.

Increases in groundborne vibration levels attributable to the project would be primarily associated with construction-related activities. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment

[4] Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

[5] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden. (2010). *Noise Navigator Sound Level Database with Over 1700 Measurement Values*.

spreads through the ground and diminishes in magnitude with increases in distance. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The nearest sensitive receptors are the residential uses 50 feet to the west of the project boundary. Based on Federal Transit Administration (FTA) vibration data [6], at 50 feet the vibration velocities from construction equipment would not exceed 0.03 in/sec PPV, which is well below the FTA's 0.20 PPV threshold. It can be assumed that at a greater distance this vibration velocity would be even less. It is also acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest residential structure. Therefore, vibration impacts associated with the proposed project would be less than significant.

The project would not generate operational groundborne vibration that could be felt at surrounding uses. Project operations would not involve railroads or substantial heavy truck operations, and therefore would not result in vibration impacts at surrounding uses. As a result, impacts from vibration associated with project operation would be less than significant.

Mitigation Measure: Compliance with General Plan Policies and applicable state and local law would reduce impacts to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant impact.

Threshold (c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?

The Palo Alto Airport is located approximately 0.7 miles southwest of the project site. According to the General Plan Palo Alto Airport Noise Contours, the project site is located within the 55 CNEL contour for the airport and the Traffic Pattern Zone (TPZ). The TPZ is an area that is routinely overflown be aircraft operating in the airport traffic pattern. The potential for aircraft accidents is relatively low and the need for land use restrictions is minimal. [7] Therefore, the project would not likely be significantly affected by overhead aircraft noise. Additionally, the project site is not located within the vicinity of a private airstrip. Private airstrip and airport noise would be less than significant.

[6] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.
[7] East Palo Alto General Plan Update EIR, April 2016.

Mitigation Measure: Compliance with General Plan Policies and applicable state and local law would reduce impacts to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant impact.

Appendix D

East Palo Alto Phoenix Academy

Initial Study/Mitigated Negative Declaration

Mark Church
Chief Elections Officer & Assessor-County Clerk-Recorder

555 County Center
Redwood City, CA 94063-1665
phone 650.363.4500 **fax** 650.599.7458
email clerk@smcare.org
web www.smcare.org

Posting Confirmation of Notice for Environmental Impact Reports

February 17, 2011

Aspire Public School
Attn: Stephanie Wilson
22nd Avenue Ste 200 Oakland, CA 94606

Subject: Return of Notice of Environmental Impact Report Posted for 30 days
(Public Resources Code Section 21092.3)

The attached notice was received by the County Clerk on June 29, 2010 and posted for thirty (30) days.

By: _____
Besz De La Vega — Deputy Clerk on behalf of Mark Church

PUBLIC REVIEW DRAFT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

EAST PALO ALTO PHOENIX ACADEMY
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
ASPIRE PUBLIC SCHOOLS

JUNE 28, 2010

InSite
environmental, inc.

6653 Embarcadero Drive, Suite Q
Stockton, CA 95219
209.472.8650
Fax 209.472.8654
www.insite-env.com

Prepared for:

ASPIRE PUBLIC SCHOOLS
1001 22nd Avenue, Suite 200
Oakland, CA 94606

PUBLIC NOTICE

INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
ASPIRE PUBLIC SCHOOLS, EAST PALO ALTO, CALIFORNIA

Project Description and Location

The project proposes to construct a 411 student charter school with 30 teachers/staff members, serving student grades 6-12. The site is located on two parcels (2.7 acres) located at 1039 and 1063 Garden Street in East Palo Alto. The project consists of approximately 37,353 square feet of new building construction with one two-story building that will house classrooms, science and specialty rooms, administrative space and a stand-alone multipurpose building/gymnasium. Site improvements would include a quad area, play area, parking and access to the site and street frontage improvements. (College for Certain, Inc, Oakland, CA, developer.)

California State Law requires the Lead Agency, ASPIRE PUBLIC SCHOOLS, to conduct environmental review of its projects that require a public hearing. Environmental review examines the nature and extent of any potentially significant adverse effects on the environment that could occur if a project is approved and implemented. The Board of Directors of ASPIRE PUBLIC SCHOOLS (the "Board") would require the preparation of an Environmental Impact Report if the review concluded that the proposed project could have a significant unavoidable effect on the environment. The California Environmental Quality Act (CEQA) requires this notice to disclose whether any listed toxic sites are present. The project location **does not** contain a listed toxic site.

Based on an initial study, the Board has concluded that the project described above will not have a significant effect on the environment. This notice has been sent to all owners and occupants of property within 500 feet of the proposed project to inform them of the Board's intent to adopt a Mitigated Negative Declaration for the proposed project on **August 3, 2010**, and to provide an opportunity for public comments on the draft Mitigated Negative Declaration. The public review period for this draft Mitigated Negative Declaration begins on **June 29, 2010** and ends on **July 29, 2010.** Comments may be sent to Aspire Public Schools, 1001 22nd Avenue, Ste. 200, Oakland, CA, Attn: Stephanie Wilson.

A public hearing on the Mitigated Negative Declaration and the project described above is scheduled for **August 3, 2010** at **6:00 p.m. at 1848C Bay Road, East Palo Alto, CA.** The draft Mitigated Negative Declaration, initial study, and reference documents are available for review at the East Palo Alto Library, 2415 University Avenue, East Palo Alto, CA. Adoption of a Mitigated Negative Declaration does not constitute approval of the proposed project. The decision to approve or deny the project described above will be made separately on August 3, 2010 after consideration of the Mitigated Negative Declaration by the Board. For additional information, please call Linda J. LeZotte @ 408-823-8200 or Alberto Tovar @ 213-675-0273.

Circulated on: 6/29/2010 ASPIRE PUBLIC SCHOOLS

JAMES R. WILLCOX, CEO

PUBLIC REVIEW DRAFT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

EAST PALO ALTO PHOENIX ACADEMY
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
ASPIRE PUBLIC SCHOOLS

JUNE 28, 2010

Prepared for:
ASPIRE PUBLIC SCHOOLS
1001 22nd Avenue, Suite 200
Oakland, CA 94606

Prepared by:
INSITE ENVIRONMENTAL, INC.
6653 Embarcadero Drive, Suite Q
Stockton, CA 95219

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APPENDICES: (THE FOLLOWING APPENDICES ARE AVAILABLE AT THE SAN MATEO COUNTY BRANCH LIBRARY, 2415 UNIVERSITY AVENUE, EAST PALO ALTO, CA 94303 (650) 321-7712

A. Air Quality Modeling

B. Archaeological And Historical Resource Reports

C. Soils Report

D. Environmental Site Assessments

E. Traffic Impact Analysis

NEGATIVE DECLARATION

Lead Agency:

ASPIRE PUBLIC SCHOOLS
1001 22nd Avenue, Suite 200
Oakland, CA 94606

PROJECT NAME: East Palo Alto Phoenix Academy

PROJECT PROPONENT: College for Certain, LLC
1001 22nd Avenue
Oakland, CA 94606

PROJECT LOCATION: 1039 and 1063 Garden Street, East Palo Alto, CA.

PROJECT DESCRIPTION: The East Palo Alto Phoenix Academy project consists of the redevelopment of a 1.7-acre parcel, currently developed with a residence and greenhouses, and a 1-acre parcel that is vacant. The proposed use is a Grade 6-12 charter school that would accommodate 411 students. The proposed project involves approximately 37,353 square feet of new building construction, with four two-story buildings that would include classrooms, science and specialty rooms, and administrative space, and one stand-alone multipurpose building/ gymnasium. Proposed site improvements also would include two parking areas, access and a drop-off lane, a quad area, and street frontage improvements.

DETERMINATION:

The Lead Agency has prepared an Initial Study, attached, which considers the potential environmental effects of the proposed project. The Initial Study identifies potentially significant effects, but:

1. Revisions in the project plans or mitigation proposals made by the Lead Agency before a proposed Mitigated Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

2. There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.
The project revisions, proposals or mitigation measures agreed to by the Lead Agency are listed below.

AESTHETICS MITIGATION MEASURES

1. All outdoor lighting on the project site shall use low-intensity fixtures, shall be shielded to minimize light overspill onto adjacent properties, and shall be limited to applications necessary for safety and security. If any lighting is used in the parking areas, pole heights shall be no higher than 20 feet and lights shall be shielded to minimize overspill.

2. All lighting on the project site, except that considered necessary for safety and security, shall be turned off no later than 9:00 PM, unless a school program occurs after this time, in which case lights shall be turned off no later than one hour after the conclusion of the program.

AIR QUALITY MITIGATION MEASURES

1. The Lead Agency and its contractors shall comply with the following Basic Control Measures, as set forth in Table 2 of the *BAAQMD CEQA Guidelines*:

   - Water all active construction areas at least twice daily.
   - Cover all trucks hauling soil, sand and other loose materials, or require all trucks to maintain at least two feet of freeboard.
   - Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
   - Sweep daily with water sweepers all paved access roads, parking areas and staging areas at construction sites.

   Sweep streets daily with water sweepers if visible soil material is carried onto adjacent public streets.

2. The Lead Agency and its contractors shall use low-VOC exterior and interior coatings on all buildings.

CULTURAL RESOURCE MITIGATION MEASURES

1. If any subsurface cultural resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist can examine these materials and make a determination of their significance. The Lead Agency shall be notified immediately and shall be responsible for mitigation of any significant cultural resources pursuant to the CEQA Guidelines.

2. If human remains are encountered at any time during the development of the project, all work within 20 feet of the find shall halt and the County Coroner shall be notified immediately. The Coroner shall contact the Native American Heritage Commission if the remains are identified as being of Native American origin. At the same time, the Lead Agency shall retain a qualified archaeologist to evaluate the archaeological implications of the finds. The Lead Agency shall follow CEQA

Guidelines Section 15064.5(d) and (e), which details steps to be taken when human remains are found to be of Native American origin.

GEOLOGY AND SOILS MITIGATION MEASURES

1. The Lead Agency and its contractors shall implement measures to minimize liquefaction hazards in accordance with the recommendations set forth in the geotechnical investigation and design report by ARCADIS, if the report identifies a liquefaction hazard. The measures shall at least meet the acceptance criteria required by California Geological Survey Note 48 for ground improvement measures.

2. Prior to project construction, the Lead Agency shall submit to the Division of the State Architect the geotechnical investigation and design report for its review and approval. The report shall identify potential geotechnical problems associated with project construction, and shall present design criteria that addresses these problems. Project design shall comply with Division of the State Architect criteria for school construction as related to geotechnical issues, and shall be incorporated in design and construction of the project.

HAZARDS AND HAZARDOUS MATERIAL MITIGATION MEASURES

1. The Lead Agency or its contractors shall remove and properly dispose shallow pesticide, lead, and petroleum hydrocarbon-impacted soil from the pesticide mixing area, the greenhouses, the site residence, and the two chemical storage areas prior to commencement of school operations. These soils shall be stockpiled on site and re-sampled to profile the soil for proper disposal. Confirmation soil samples shall be collected in these areas.

2. The Lead Agency or its contractors shall remove and properly dispose shallow physical surficial debris. This debris will likely include primarily vegetation, glass, wood, precipitated salt, metal, chicken coop debris, and the burned building.

3. All on-site water supply wells shall be properly abandoned, in accordance with the procedures of the San Mateo County Health System, Environmental Health Division.

4. The Lead Agency shall obtain a demolition permit from the City of East Palo Alto and comply with asbestos emissions control requirements. The Lead Agency and its contractors shall comply with the provisions of BAAQMD Rule 11-2 for the removal of asbestos materials.

5. The Lead Agency and its contractors shall employ appropriately trained workers and abatement procedures, and shall dispose of lead-containing wastes as required by all applicable federal and state regulations.

HYDROLOGY AND WATER QUALITY MITIGATION MEASURES

1. The Lead Agency shall comply with the provisions of the Construction General Permit, including the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the project and filing of a Notice of Intent (NOI) with the State Water Resources Control Board prior to commencement of construction activity. The SWPPP shall be available on the construction site at all times.

2. The Lead Agency shall comply with all applicable requirements set forth in the NPDES Storm Water Permit No. CAS612008, including implementation of applicable LID source control, site design and stormwater treatment measures. The Lead Agency and the San Francisco Bay RWQCB shall determine the provisions applicable to the project.

NOISE MITIGATION MEASURES

1. Project plans and specifications shall require the use of mufflers for construction vehicles and equipment, to be installed and used in accordance with manufacturer's specifications.

PUBLIC SERVICE MITIGATION MEASURES

1. The Lead Agency shall ensure that the construction area is secure during the construction period when the developer is not on site. Measures may include, but are not limited to, fencing the project site and providing adequate security lighting without causing unnecessary illumination of adjacent residences.

2. The Lead Agency shall install fire hydrants and water distribution facilities that will provide fire flows that are adequate to support the City's existing ISO rating and that conform to adopted Building Code Fire Safety Standards for all of the uses proposed within the project area. The Lead Agency shall consult with the Menlo Park Fire Protection District on the number and location of hydrants and water distribution facilities.

TRANSPORTATION AND TRAFFIC MITIGATION MEASURES

1. Parking spaces and drive aisle dimensions shall adhere to Division of the State Architect design standards.

2. To manage vehicles speeds within the project site, suitable speed reduction measures (such as but not limited to speed limit signs and/or speed bumps) shall be installed along the access roadway.

3. Curb, gutter and sidewalk improvements shall be constructed along the Garden Street frontage in accordance with City of East Palo Alto design standards. If the school expands its street frontage in the future, it shall construct curb, gutter and sidewalk along the additional frontage if none of these facilities exist, in accordance with City of East Palo Alto design standards.

UTILITIES AND SERVICE SYSTEM MITIGATION MEASURES

1. The Lead Agency shall pay fair-share costs towards the installation of an eight-inch water line from the project site to the water line under either Clarke Avenue or Pulgas Avenue. Water line design and installation shall conform to City of Palo Alto Public Works Department standards. Construction work shall comply with all requirements to reduce environmental impacts, including water quality protection and erosion control measures. Installation shall be completed prior to the construction of structures on the project site.

2. The Lead Agency shall pay fair-share costs towards the installation of an eight-inch sewer line from the project site to Pulgas Avenue. Sewer line design and installation shall conform to City of Palo Alto Public Works Department standards. Construction work shall comply with all requirements to reduce environmental impacts, including water quality protection and erosion control measures. Installation shall be completed prior to the construction of structures on the project site.

James Willcox, CEO
Aspire Public Schools

6/29/10
Date

Chapter 1.0
Introduction to Initial Study

Project Brief

The East Palo Alto Phoenix Academy (EPAPA) project consists of the redevelopment of a 1.7-acre parcel, currently developed with a residence and greenhouses, and a 1-acre parcel that is vacant. The proposed use is a Grade 6-12 charter school that would accommodate 411 students. The site is located on two parcels located at 1039 Garden Street and 1063 Garden Street in East Palo Alto.

The proposed project involves approximately 37,353 square feet of new building construction, with four two-story buildings that would include classrooms, science and specialty rooms, and administrative space, and one stand-alone multipurpose building/ gymnasium. Proposed site improvements also would include two parking areas, access and a drop-off lane, a quad area, and street frontage improvements. The project site is presently designated and zoned for low-medium density residential by the City of East Palo Alto; the project is consistent with the existing land use designation and zoning. Required project approvals would include approvals from Aspire Public Schools and from the Division of the State Architect.

A detailed description of the project, its location and purpose is provided in Chapter 2.0. The general location of the project and its major components are shown on Figures 2-1 through 2-7D at the end of Chapter 2.0.

Purpose of Initial Study

The California Environmental Quality Act (CEQA) requires that public agencies document and consider the potential environmental effects of government agency actions that meet CEQA's definition of a "project;" briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the "CEQA Guidelines" (Title 14, Chapter 3 of the California Code of Regulations).

For the purposes of CEQA, Aspire Public Schools is the Lead Agency for the project. Although Aspire Public Schools is not a school district, but a public charter school, Education Code 47612(c) states that a charter school is deemed to be a school district, and is considered a public agency under Government Code Section 6528. Therefore, Aspire Public Schools may be treated as a public school district for the purposes of CEQA, and may act as a Lead Agency. The City Attorney's Office for the City of Oakland confirmed this status in a comment letter dated November 19, 2009 that was related to an Aspire school project in Oakland.

Provided that a project is not found to be exempt from CEQA, the first step in the agency's evaluation of the potential environmental effects of the project is the preparation of an

Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects as defined by CEQA and to describe feasible mitigation measures that would be necessary to avoid the significant effects or reduce them to a less than significant level. In the event that the Initial Study does not identify significant effects, or identifies mitigation measures that would reduce all of the significant effects of the project to a less than significant level, the agency may prepare a Negative Declaration. If this is not the case, the agency must prepare an Environmental Impact Report (EIR); the agency may also decide to proceed directly with the preparation of an EIR without preparation of an Initial Study.

The proposed EPAPA is a "project" as defined by CEQA and is not CEQA-exempt. Aspire Public Schools has determined that the project can reduce potentially significant environmental effects to less than significant levels with the implementation of mitigation measures, and that a Mitigated Negative Declaration will be prepared for the project. This finding is documented in this Initial Study.

Scope of Initial Study

This Initial Study evaluates the project's potential to result in "significant" environmental effects as defined by CEQA in the following issue areas. Where feasible mitigation measures that would avoid or reduce significant effects are identified, the proposed mitigation measures are identified in each issue area.

Aesthetics

Agriculture and Forest Resources

Air Quality

Biological Resources

Cultural Resources

Geology and Soils

Greenhouse Gas Emissions

Hazards and Hazardous Materials

Hydrology and Water Quality

Land Use and Planning

Mineral Resources

Noise

Population and Housing

Public Services

Recreation

Transportation/Traffic

Utilities and Service Systems

Mandatory Findings of Significance

Environmental Evaluation Checklist Terminology

The potential environmental effects of the proposed project are evaluated in Chapter 3.0 of this document, which is the Environmental Evaluation Checklist. The potential environmental effects are summarized in Table 1-1 at the end of this chapter. The Environmental Evaluation Checklist includes a list of environmental considerations against which the project is evaluated. For each of these considerations, the agency determines whether the project would involve: 1) No Impact, 2) a Less Than Significant Impact, 3) a Less Than Significant Impact With Mitigation Incorporated, or 4) a Potentially Significant Impact.

A Potentially Significant Impact occurs when there is substantial evidence that the project would involve a substantial adverse change to the physical environment, i.e. that the environmental effect may be significant, and mitigation measures have not been defined that would reduce the impact to a less than significant level. If there are one or more Potentially Significant Impact entries in the Initial Study, an EIR is required.

A Less Than Significant Impact occurs when the project would involve some effects on the resource in question, but the project would not involve a substantial adverse change to the physical environment, and no mitigation measures are required.

An environmental effect that is Less Than Significant With Mitigation Incorporated is a potentially significant impact that can be avoided or reduced to a less than significant level with the application of mitigation measures.

A determination of No Impact is self-explanatory.

Initial Study Organization

Chapter 1.0, Introduction, briefly summarizes the project, the purposes of the Initial Study, the terminology used in the Initial Study, and the organization of the document. A table summarizing the potential environmental effects of the project is included at the end of the chapter.

Chapter 2.0, Project Description, describes the proposed development project, its location, background and required permits and approvals.

Chapter 3.0, the Environmental Evaluation Checklist, contains the environmental evaluation of the project in the environmental issue areas described above. At the end of the chapter is a list of the documents cited, the persons consulted in the preparation of this Initial Study, and the preparers of this document.

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures		Mitigation Measures	Significance After Mitigation
1. AESTHETICS				
Impacts on Scenic Vistas	LS		None required	
Impacts on Scenic Resources and Visual Character	LS		None required	
Light and Glare Impacts	PS	1-1	All outdoor lighting on the project site shall use low-intensity fixtures, shall be shielded to minimize light overspill onto adjacent properties, and shall be limited to applications necessary for safety and security. If any lighting is used in the parking areas, pole heights shall be no higher than 20 feet and lights shall be shielded to minimize overspill.	LS
		1-2	All lighting on the project site, except that considered necessary for safety and security, shall be turned off no later than 9:00 PM, unless a school program occurs after this time, in which case lights shall be turned off no later than one hour after the conclusion of the program.	
2. AGRICULTURE				
Impacts on Agricultural and Forest Resources	LS		None required	
3. AIR				
Construction Impacts	PS	3-1	The Lead Agency and its contractors shall comply with the following Basic Control Measures, as set forth in Table 2 of the *BAAQMD CEQA Guidelines*: ◦ Water all active construction areas at least twice daily. ◦ Cover all trucks hauling soil, sand and other loose materials, or require all trucks to maintain at least two feet of freeboard. ◦ Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. ◦ Sweep daily with water sweepers all paved access roads, parking areas and staging areas at construction sites. ◦ Sweep streets daily with water sweepers if visible soil material is carried onto adjacent public streets.	LS
		3-2	The Lead Agency and its contractors shall use low-VOC exterior and interior coatings on all buildings.	
Project Operation Impacts	LS		None required	
Carbon Monoxide Emissions	LS		None required	

TABLE 1-1

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures		Mitigation Measures	Significance After Mitigation
Air Toxics and Odors	LS		None required	
4. BIOLOGICAL RESOURCES				
Project Impacts on Biological Resources	LS		None required	
5. CULTURAL RESOURCES				
Project Impacts on Archaeological Resources	PS	5-1	If any subsurface cultural resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist can examine these materials and make a determination of their significance. The Lead Agency shall be notified immediately and shall be responsible for mitigation of any significant cultural resources pursuant to the CEQA Guidelines.	LS
		5-2	If human remains are encountered at any time during the development of the project, all work within 20 feet of the find shall halt and the County Coroner shall be notified immediately. The Coroner shall contact the Native American Heritage Commission if the remains are identified as being of Native American origin. At the same time, the Lead Agency shall retain a qualified archaeologist to evaluate the archaeological implications of the finds. The Lead Agency shall follow CEQA Guidelines Section 15064.5(d) and (e), which details steps to be taken when human remains are found to be of Native American origin.	
Project Impacts on Historical Resources	LS		None required	
6. GEOLOGY AND SOILS				
Project Exposure to Geologic Hazards	PS	6-1	The Lead Agency and its contractors shall implement measures to minimize liquefaction hazards in accordance with the recommendations set forth in the geotechnical investigation and design report by ARCADIS, if the report identifies a liquefaction hazard. The measures shall at least meet the acceptance criteria required by California Geological Survey Note 48 for ground improvement measures.	LS
Project Exposure to Soil Constraints	PS	6-2	Prior to project construction, the Lead Agency shall submit to the Division of the State Architect the geotechnical investigation and design report for its review and approval. The report shall identify potential geotechnical problems associated with project construction, and shall present design criteria that addresses these problems. Project design shall comply with Division of the State Architect criteria for school construction as related to geotechnical issues, and shall be incorporated in design and construction of the project.	LS

TABLE 1-1

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures		Mitigation Measures	Significance After Mitigation
7. GREENHOUSE GAS EMISSIONS				
Project GHG Emissions	LS		None required	
8. HAZARDS AND HAZARDOUS MATERIALS				
Potential Exposure of Construction Workers and/or Students to Existing Environmental Contamination	PS	8-1	The Lead Agency or its contractors shall remove and properly dispose shallow pesticide, lead, and petroleum hydrocarbon-impacted soil from the pesticide mixing area, the greenhouses, the site residence, and the two chemical storage areas prior to commencement of school operations. These soils shall be stockpiled on site and re-sampled to profile the soil for proper disposal. Confirmation soil samples shall be collected in these areas.	LS
		8-2	The Lead Agency or its contractors shall remove and properly dispose shallow physical surficial debris. This debris will likely include primarily vegetation, glass, wood, precipitated salt, metal, chicken coop debris, and the burned building.	
		8-3	All on-site water supply wells shall be properly abandoned, in accordance with the procedures of the San Mateo County Health System, Environmental Health Division.	
Asbestos, Lead Paint and Radon	PS	8-4	The Lead Agency shall obtain a demolition permit from the City of East Palo Alto and comply with asbestos emissions control requirements. The Lead Agency and its contractors shall comply with the provisions of BAAQMD Rule 11-2 for the removal of asbestos materials.	LS
		8-5	The Lead Agency and its contractors shall employ appropriately trained workers and abatement procedures, and shall dispose of lead-containing wastes as required by all applicable federal and state regulations.	
Use of Hazardous Materials During Construction	LS		None required	
Airport Hazards	LS		None required	
Interference with Emergency Evacuation Plans	LS		None required	
9. HYDROLOGY AND WATER QUALITY				
Project Effects on Surface Water and Water Quality	PS	9-1	The Lead Agency shall comply with the provisions of the Construction General Permit, including the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the project and filing of a Notice of Intent (NOI) with the State Water Resources Control Board prior to commencement of construction activity. The SWPPP shall be available on the construction site at all times.	LS
		9-2	The Lead Agency shall comply with all applicable requirements set forth in the NPDES Storm Water Permit No. CAS612008, including implementation of applicable LID source control, site design and stormwater treatment measures. The Lead Agency and the San	

TABLE 1-1

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures		Mitigation Measures	Significance After Mitigation
			Francisco Bay RWQCB shall determine the provisions applicable to the project.	
Project Effects on Groundwater	LS		None required	
Flooding and Other Water Hazards	LS		None required	
10. LAND USE AND PLANNING				
Project Effects on Land Use Plan Designations and Zoning.	LS		None required	
Land Use Conflicts Associated with the Project	LS		None required	
11. MINERAL RESOURCES				
Impacts on Mineral Resources	LS		None required	
12. NOISE				
Construction Noise	PS	12-1	Project plans and specifications shall require the use of mufflers for construction vehicles and equipment, to be installed and used in accordance with manufacturer's specifications.	LS
Noise Associated with Operation of Proposed Facilities	LS		None required	
Exposure of Proposed School Facilities to Existing Transportation and Other Noise Sources	LS		None required	
13. POPULATION AND HOUSING				
Project Impacts on Population and Housing	LS		None required	
14. PUBLIC SERVICES				
Project Impacts on Police Protection Services	PS	14-1	The Lead Agency shall ensure that the construction area is secure during the construction period when the developer is not on site. Measures may include, but are not limited to, fencing the project site and providing adequate security lighting without causing unnecessary illumination of adjacent residences.	LS
Project Impacts on Fire Protection Services	PS	14-2	The Lead Agency shall install fire hydrants and water distribution facilities that will provide fire flows that are adequate to support the City's existing ISO rating and that conform to adopted Building Code Fire Safety Standards for all of the uses proposed within the project area. The Lead Agency shall consult with the Menlo Park Fire Protection District on the number and location of hydrants and water distribution	LS

TABLE 1-1

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures		Mitigation Measures	Significance After Mitigation
			facilities.	
Project Impacts on Schools	LS		None required	
Project Impacts on Parks and Recreation	LS		None required	
15. RECREATION				
Project Impacts on Recreation	LS		None required	
16. TRANSPORTATION/TRAFFIC				
Traffic Impacts under Near-Term with Project Conditions	LS		None required	
On-Site Circulation Impacts	PS	16-1	Parking spaces and drive aisle dimensions shall adhere to Division of the State Architect design standards.	LS
		16-2	To manage vehicles speeds within the project site, suitable speed reduction measures (such as but not limited to speed limit signs and/or speed bumps) shall be installed along the access roadway.	
Public Transportation and Bicycling/Pedestrian Impacts	PS	16-3	Curb, gutter and sidewalk improvements shall be constructed along the Garden Street frontage in accordance with City of East Palo Alto design standards. If the school expands its street frontage in the future, it shall construct curb, gutter and sidewalk along the additional frontage if none of these facilities exist, in accordance with City of East Palo Alto design standards.	LS
17. UTILITIES/SERVICES SYSTEMS				
Project Impacts on Potable Water Service	PS	17-1	The Lead Agency shall pay fair-share costs towards the installation of an eight-inch water line from the project site to the water line under either Clarke Avenue or Pulgas Avenue. Water line design and installation shall conform to City of Palo Alto Public Works Department standards. Construction work shall comply with all requirements to reduce environmental impacts, including water quality protection and erosion control measures. Installation shall be completed prior to the construction of structures on the project site.	LS
Project Impacts on Wastewater Treatment and Collection Service	PS	17-2	The Lead Agency shall pay fair-share costs towards the installation of an eight-inch sewer line from the project site to Pulgas Avenue. Sewer line design and installation shall conform to City of Palo Alto Public Works Department standards. Construction work shall comply with all requirements to reduce environmental impacts, including water quality protection and erosion control measures. Installation shall be completed prior to the construction of structures on the project site.	

TABLE 1-1

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
Project Impacts on Storm Drainage Services	LS	None required	
Project Impacts on Solid Waste	LS	None required	
Project Effects on Electricity, Gas and Other Utility Services	LS	None required	

Mitigation Measure Key Code:

S=Significant

CS=Cumulatively Significant

PS=Potentially Significant

LS=Less than Significant

Chapter 2
Project Description

This chapter of the Initial Study provides a brief summary description of the project followed by project setting and background information and detailed descriptions of the location and physical elements of the project.

Project Brief

The proposed project is a charter school that would accommodate a maximum of 411 students from the 6th to 12th grade. The project would be constructed on two parcels, which are located at 1039 Garden Street and 1063 Garden Street in East Palo Alto. The project site is located in a residential area.

The proposed project would involve approximately 37,353 square feet of new building construction. Construction would include four two-story buildings that would accommodate classrooms, science labs, specialty rooms and administrative space. The project also proposes a multipurpose building/gymnasium. Proposed site improvements also would include two parking areas, access and a drop-off lane, a quad area, and street frontage improvements.

Project Location

The East Palo Alto Phoenix Academy (EPAPA) project consists of the redevelopment of a 2.7-acre site, which consists of a 1.7-acre parcel developed with a residence and greenhouses, and a 1-acre parcel which is vacant. The project site comprises Assessor's Parcel Numbers 063-341-130 and 063-341-150. The location of the site is shown on Figures 2-1 through 2-5.

The site is located within Section 12 of Township 5 South, Range 3 West, MDBM and is shown on the Palo Alto U.S. Geological Survey 7.5-minute quadrangle map (Figure 2-3).

Project Setting and Background

The proposed project site is located in a residential area of central East Palo Alto, adjacent to and north of Garden Street between Clarke Avenue and Pulgas Avenue. Residences surround the project site. The parcel at 1039 Garden Street is currently developed with a single-family residence and two greenhouse buildings. The parcel at 1063 Garden Street is currently a vacant lot overgrown with grasses and weeds, although a few trees and a concrete driveway are also on the parcel.

The proposed project would become the permanent site of EPAPA, a charter school operated by the lead agency Aspire Public Schools. EPAPA currently serves students in the 9th to 12th grades at a temporary facility located at 1848C Bay Road, three blocks north of the proposed project site. The temporary facility has a capacity to serve 203 students, whereas the proposed facility would accommodate 231 students from these grades. Approximately 90% of EPAPA's students currently reside in East Palo Alto; the remaining 10% of the students are former residents of East Palo Alto who still attend EPAPA.

Aspire Public Schools also operates the East Palo Alto Charter School, located at 1286 Runnymede Street, approximately one block north and east of the project site. East Palo Alto Charter School currently serves 156 students in the 6th to 8th grades; the proposed facility would accommodate 180 students in these grades. As with EPAPA, approximately 90% of these students reside in East Palo Alto. Aspire Public School plans to move the Grade 6-8 students from the East Palo Alto Charter School to the new facility; the existing Charter School would continue to serve the kindergarten to 5th grade students.

Project Phasing

Construction of the proposed project would occur at once, with the classrooms scheduled to be operational in July 2011. Upon completion of the project, Aspire Public Schools proposes to move all students from the existing EPAPA and the 7th and 8th grade students from the East Palo Alto Charter School to the proposed school for the first year of school operations. 6th grade students from the East Palo Alto Charter School would eventually be moved to the new facility.

Additionally, Aspire would implement several operational strategies to minimize adverse impacts on the surrounding neighborhood. One strategy would be a staggered schedule – Grades 6-8 would commence school at approximately 7:40 AM while Grades 9-12 would begin their sessions 20-30 minutes later. The end-of-day schedule would be staggered in five increments, in coordination with after-school programs the new school would offer. The dismissal schedule would be approximately as follows:

Dismissal (time)	Grade Level	Students Dismissed	Total
1st (approx. 2:40 PM)	6-8	50% of 6-8 students	87
2nd (1/2 hour after 1st dismissal)	9-12	17% of 9-12 students	36
3rd (1 hour after 1st dismissal)	6-8	The remaining 50% of 6-8 students	87
4th (1 hour after 2nd dismissal)	9-12	50% of 9-12 students	107
5th (1 hour after 4th dismissal)	9-12	The remaining 33% of 9-12 students	71

In addition, Aspire intends to expand its school busing service to all its students at the new school, rather than just to the Grade 6-8 students currently served. Furthermore, the site is located near the East Palo Alto Free Community Shuttle stop at the corner of Garden Street and Pulgas Avenue. Since the new school would be closer to the residential communities where students live, biking and walking would be encouraged inherently.

Project Entitlements

The project would require approval from Aspire Public Schools. As discussed in Chapter 1.0, Introduction, Aspire Public Schools is considered a Lead Agency for purposes of CEQA. As such, Aspire Public Schools would be required to adopt the Initial Study/Mitigated Negative Declaration prior to a decision on the project. Both the adoption of the CEQA document and the decisions would occur in the same meeting of the Aspire Public Schools board.

The Lead Agency intends to seek approval of the project from the Division of the State Architect (DSA). The project would require an Approval of Plans letter from DSA. The Approval of Plans letter is the document that conveys official approval of the plans and specifications for a project. DSA requires a project applicant to submit site plans and drawings illustrating structural, mechanical, plumbing, electrical, fire alarm and fire sprinkler aspects of the project. Copies of a geotechnical report, structural calculations and Title 24 compliance also must be submitted.

Development Details

The proposed project would be constructed on two parcels totaling approximately 2.7 acres of land, adjacent to and north of Garden Street. The project proposes the construction of four two-story school buildings and a stand-alone multipurpose building/gymnasium, totaling 37,353 square feet of floor area. Figure 2-6 shows the proposed site plan for the project. The school would employ approximately 30 faculty/staff members, and would serve approximately 411 students approximately two years after completion.

The four school buildings would be located in the western portion of the project site. Two of the four buildings (designated as Buildings B1 and B2 in Figure 2-6) would house the 14 classrooms to be used by the students. Building B1 would also contain the administrative offices and girls' and boys' restrooms. Building B2 would have storage space. Stairs and an elevator would provide access between the two stories, and a walkway would provide access to rooms on the second story of each building. Building B1 would have approximately 7,776 square feet of floor area, and Building B2 would have approximately 8,640 square feet of floor area.

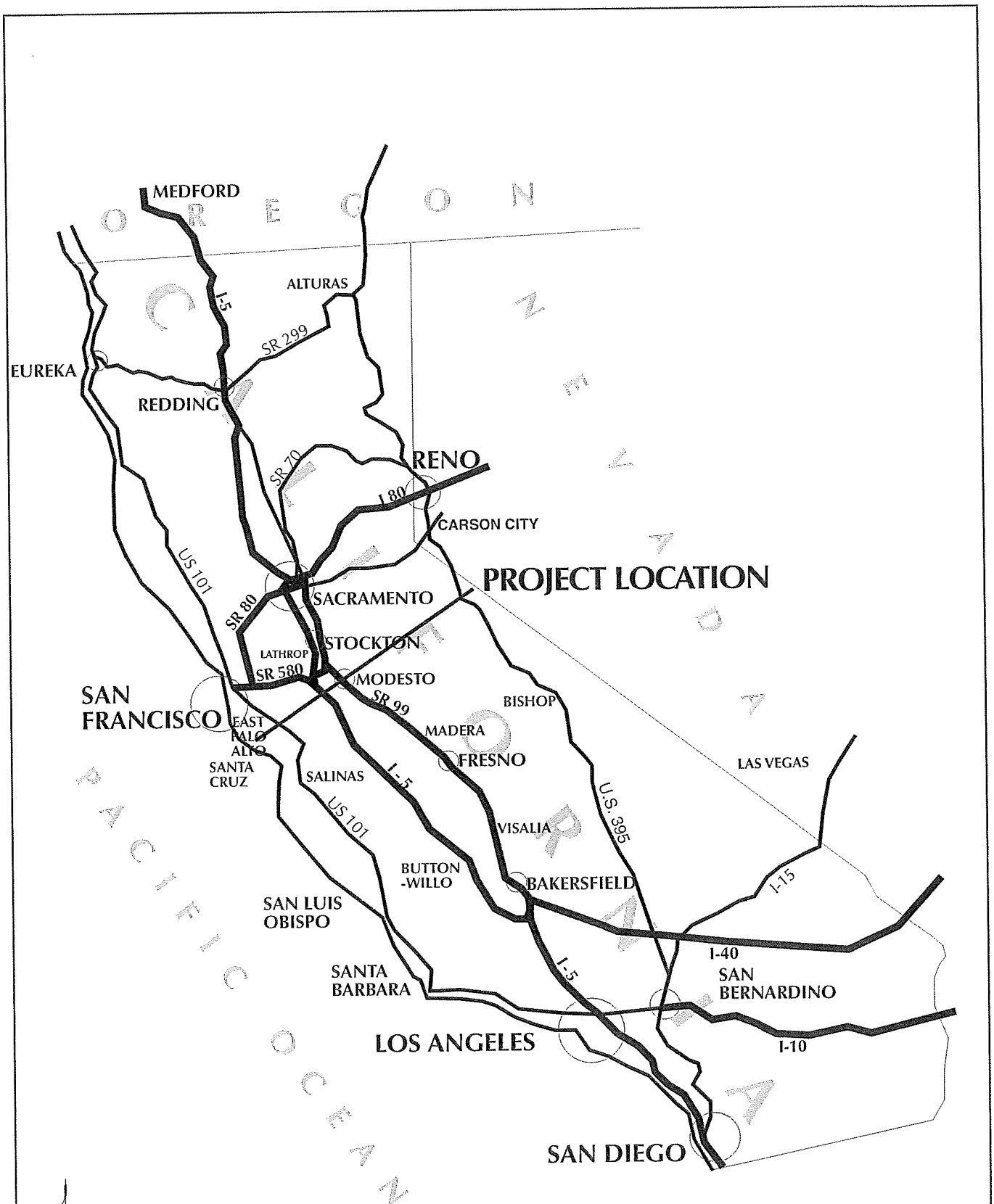
The two smaller school buildings (not designated in Figure 2-6) would house two specialty rooms and three science rooms. Both smaller buildings would have faculty lounge areas, and one building would have a faculty restroom. Walkways would connect the smaller buildings to Building B2, and stairs would provide access to the upper story of each building. Each building would have 3,456 square feet of floor area.

The northeastern corner of the project site would be the location of the one-story stand-alone multipurpose building/gymnasium, designated as Building A in Figure 2-6. The multipurpose building, aside from the activity area, would also have space for a kitchen, a utility room and storage. Building A would have approximately 9,930 square feet of floor area.

Other features of the project would include a quad area located between the multipurpose building and the two smaller school buildings. Landscaping and planting would be placed along the Garden Street frontage, along the boundaries of the project site, and around the residential parcel at 1045 Garden Street, which is not part of the project. There is space available for additional school building in the western portion of the project site; however, no such buildings are planned at this time. Future expansion of the project would be subject to a separate CEQA review, if required.

Access would be from Garden Street and would circulate completely around the project site, with an entrance at the western end of the site and an exit at the eastern end. A student drop-off zone would be designated along the access road at the northern edge of the project site. A parking lot containing 29 spaces would be located along the western boundary of the project site. An additional 39 parking spaces would be located in a parking lot at the site's southeastern corner. This parking lot would also have a combination playground/parking area at its northern end that would provide 17 additional spaces. A parking area would be located behind the multipurpose building for service vehicles.

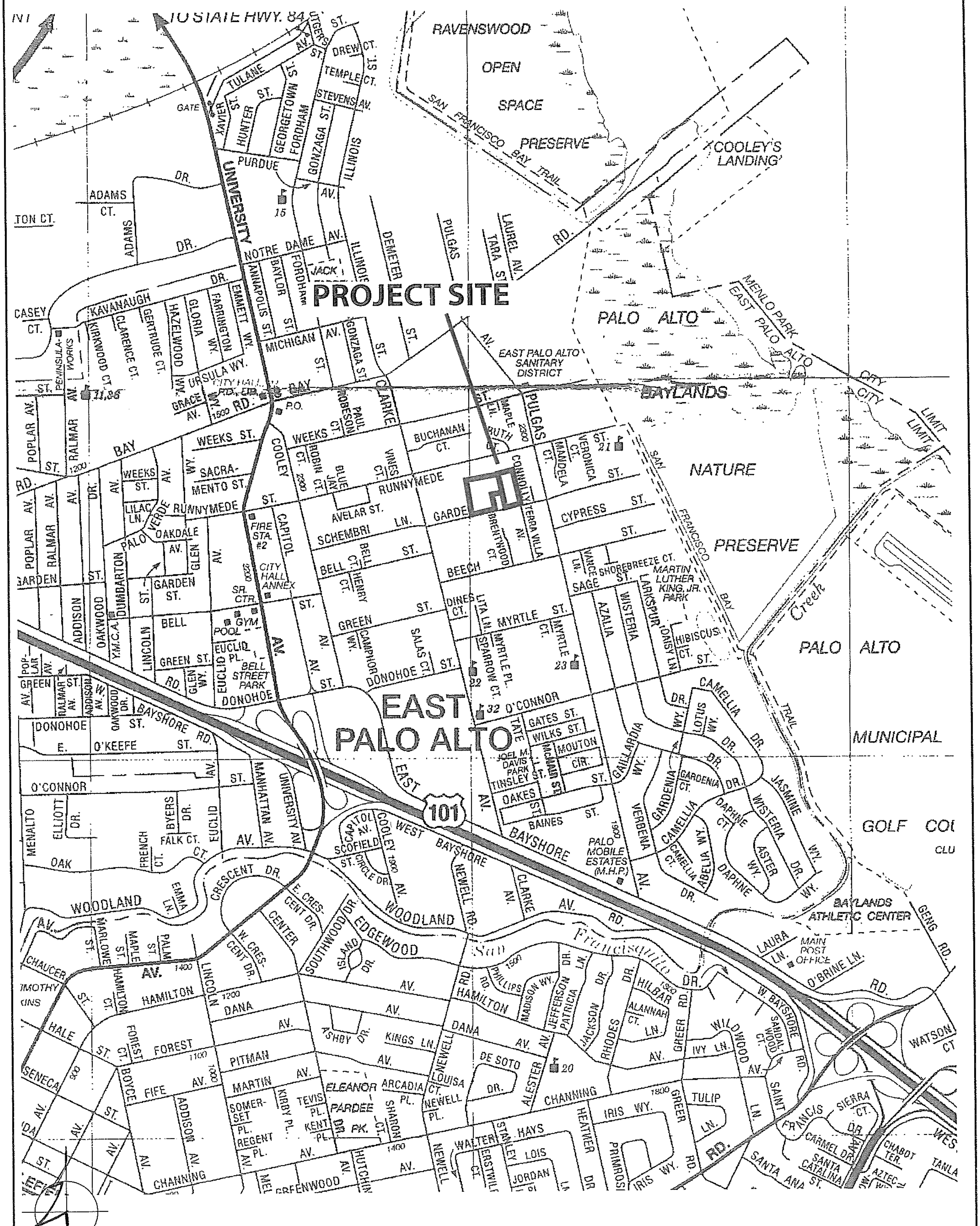
Utilities would be available to serve the proposed project and would be extended onto the site in conjunction with project construction. Water, sewer and storm drainage services would be provided by the City of East Palo Alto. Telephone, electricity and solid waste services would be provided by private companies serving East Palo Alto.



Source: INSITE ENVIRONMENTAL,

INSITE ENVIRONMENTAL, INC.

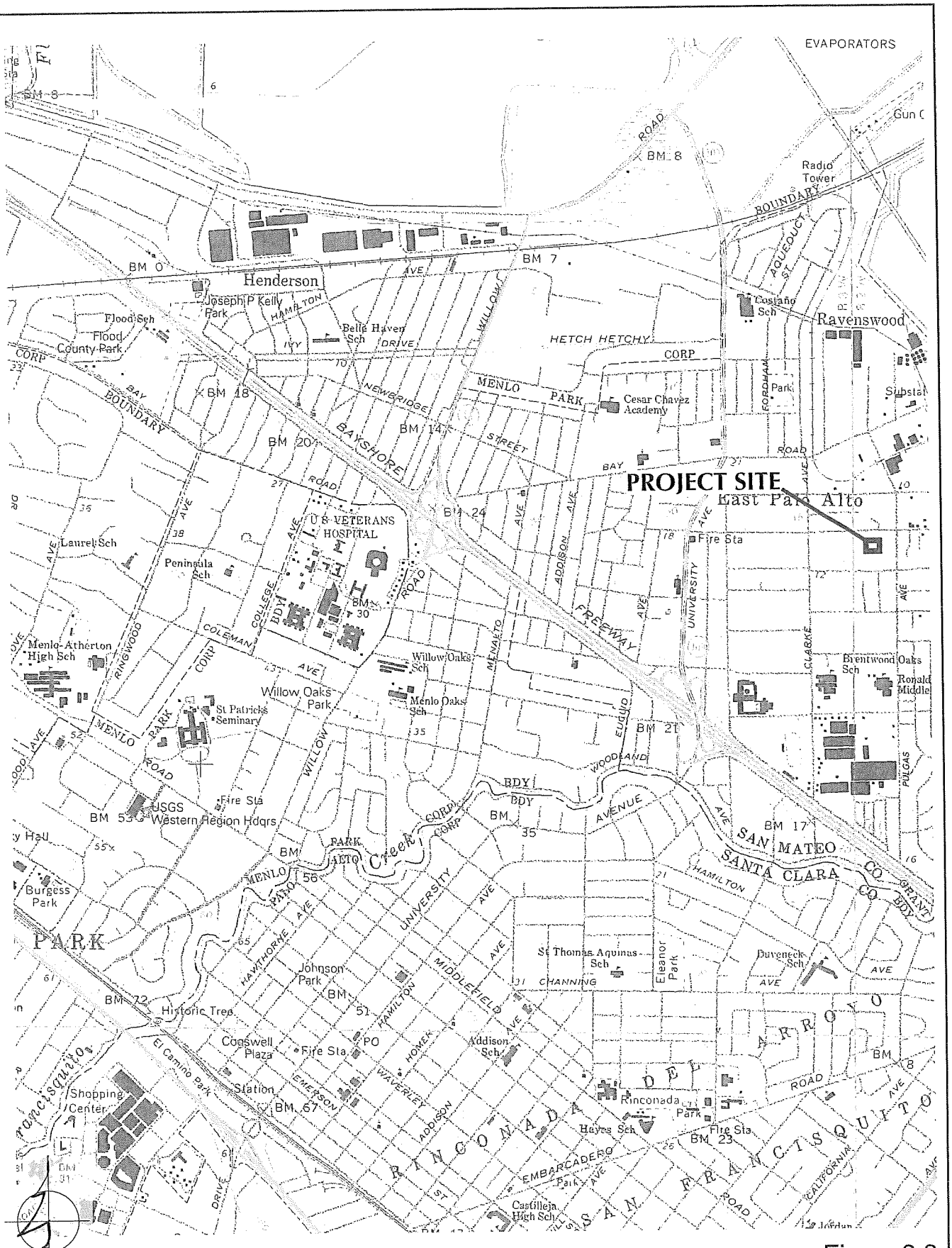
Figure 2-1
REGIONAL MAP



SOURCE: CSAA, COUNTY OF SAN MATEO

Figure 2-2
VICINITY MAP

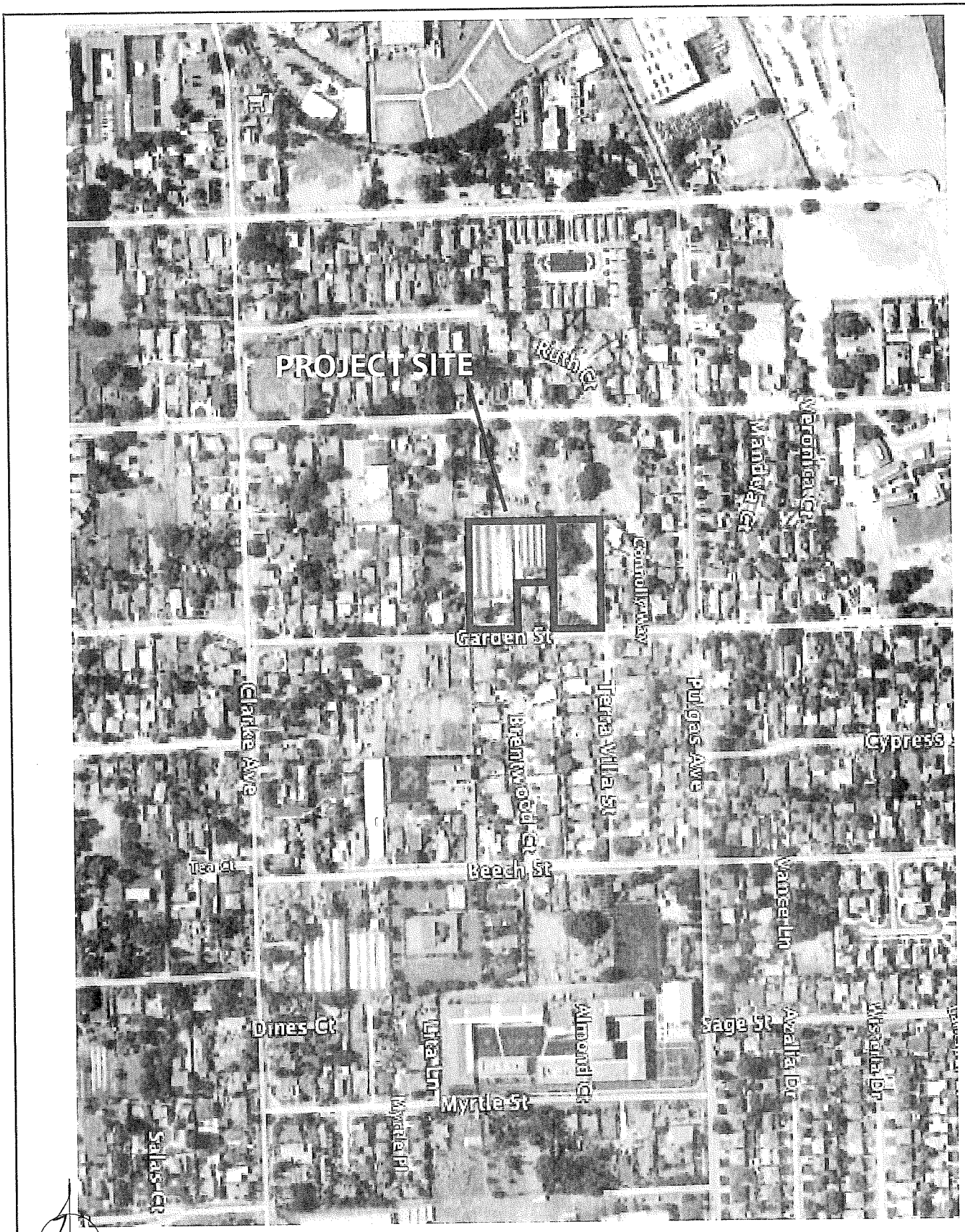
INSITE ENVIRONMENTAL, INC.



NORTH SOURCE: US GEOLOGICAL SURVEY, PALO ALTO QUADRANGLE

Figure 2-3
USGS MAP

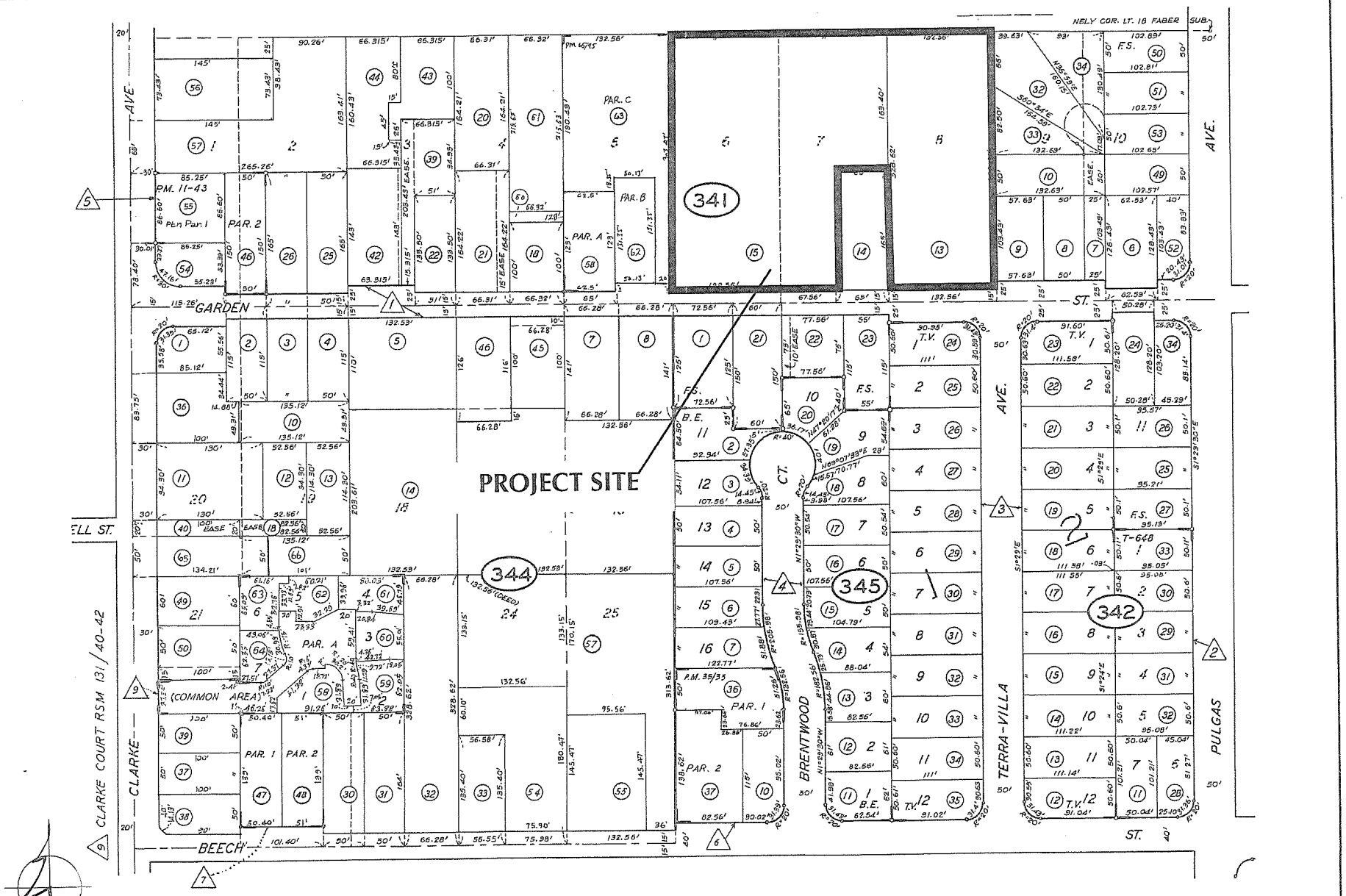
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NORTH SOURCE: GOOGLE EARTH

Figure 2-4
AERIAL PHOTO

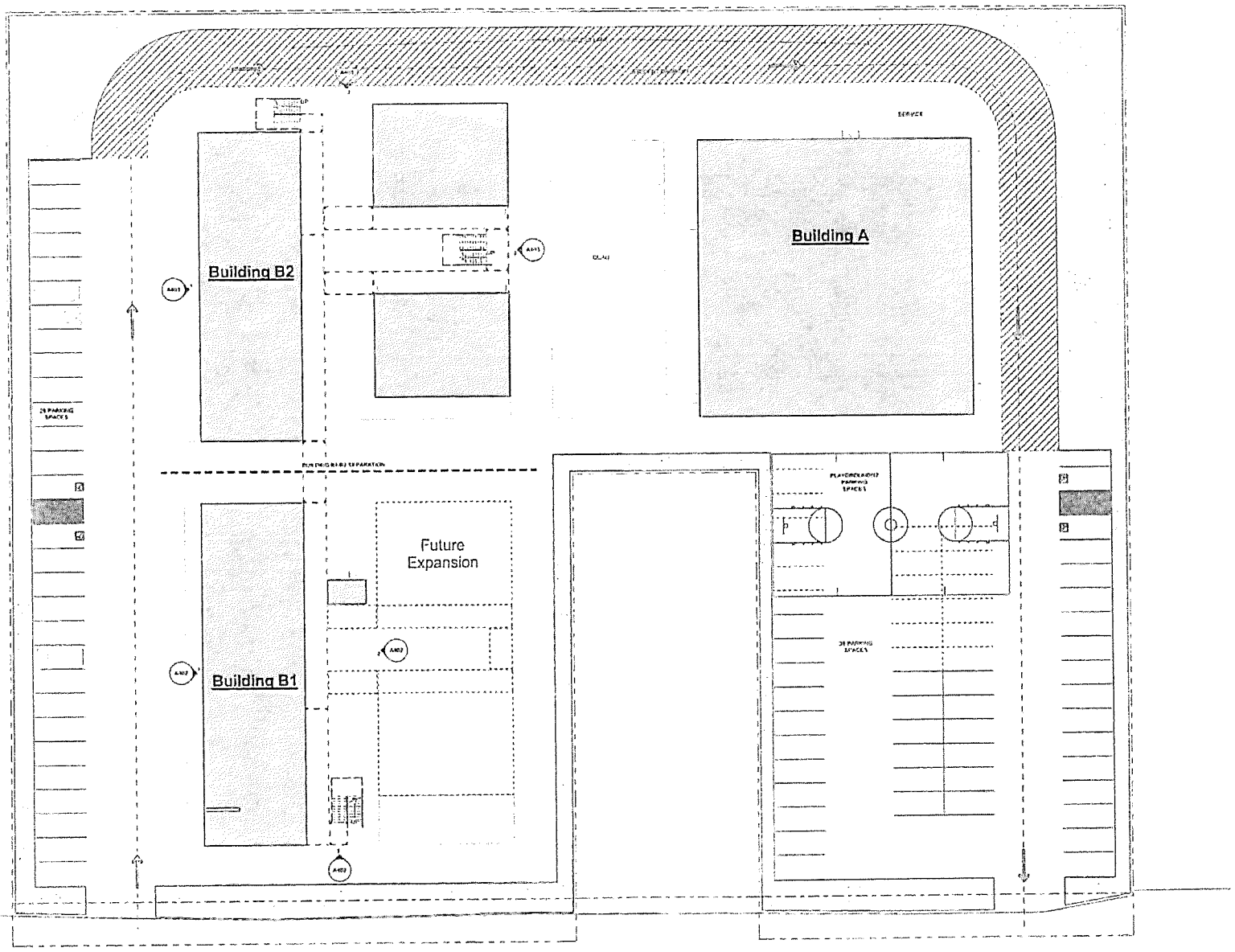
INSITE ENVIRONMENTAL, INC.



SOURCE: SAN MATEO COUNTY ASSESSOR'S OFFICE, BOOK 63, PAGE 341

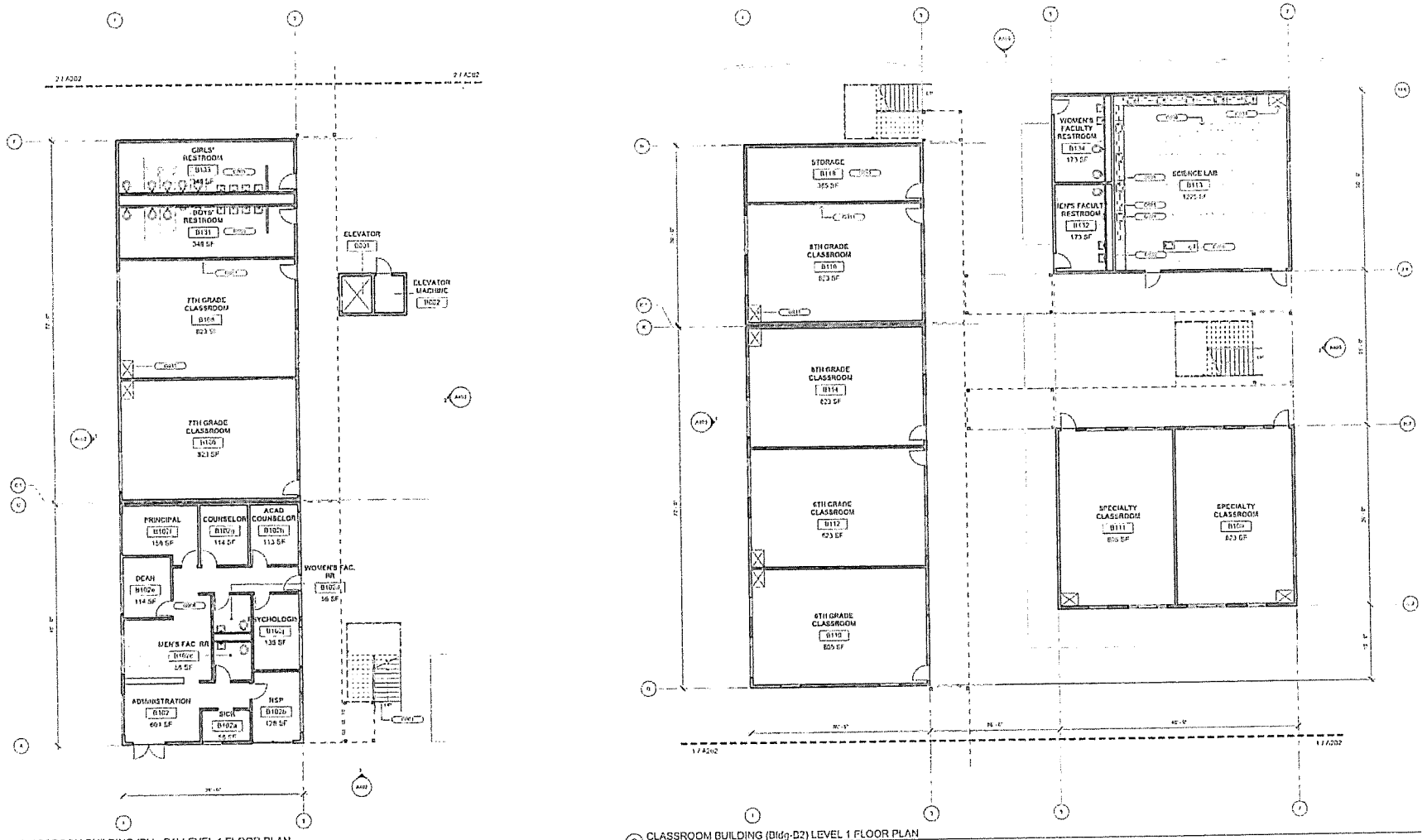
Figure 2-5
ASSESSOR'S PARCEL MAP

INSITE ENVIRONMENTAL, INC.



NORTH SOURCE: K2A ARCHITECTURE & INTERIORS

Figure 2-6
PROPOSED SITE PLAN



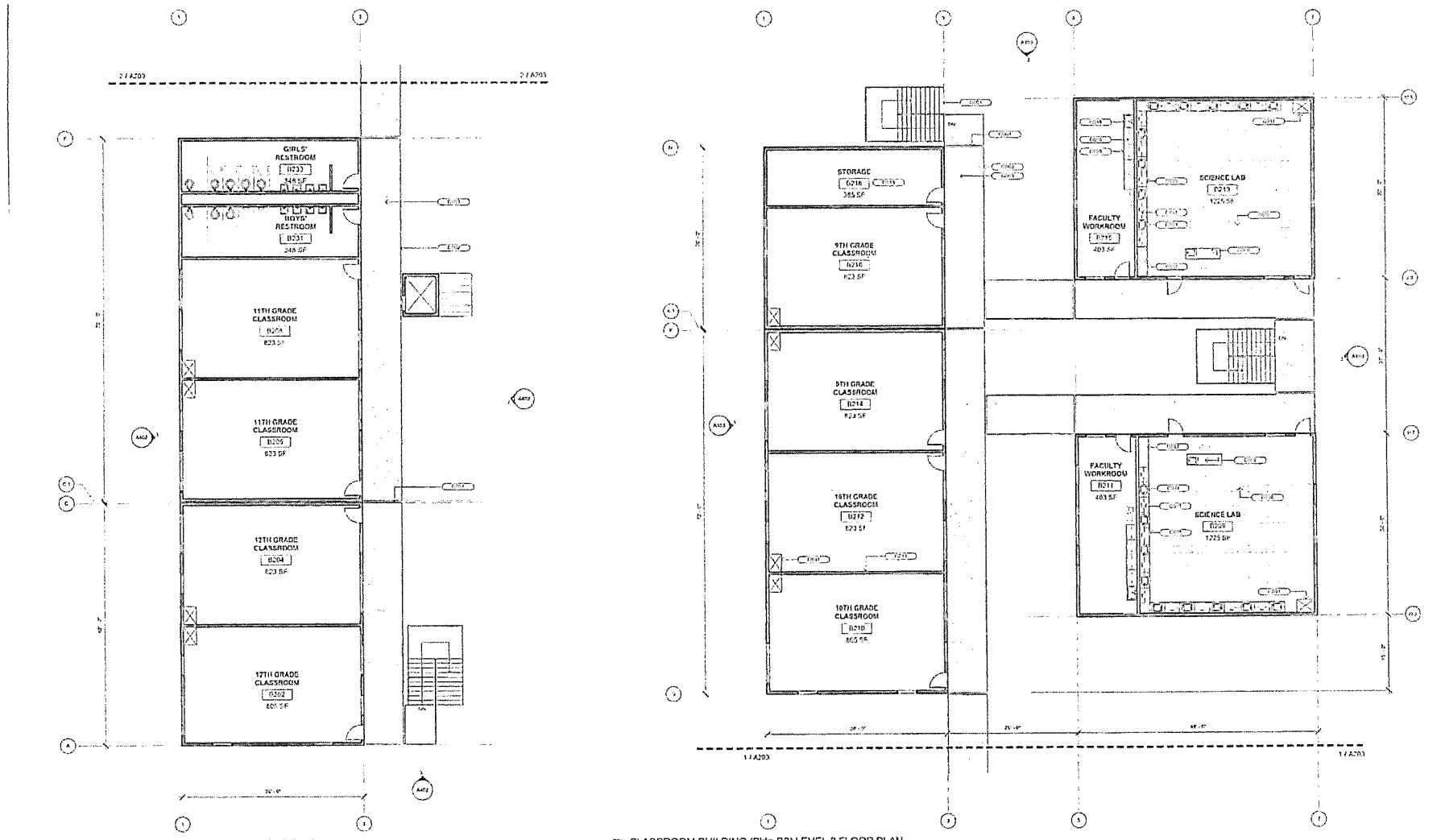
1 CLASSROOM BUILDING (Bldg-01) LEVEL 1 FLOOR PLAN

2 CLASSROOM BUILDING (Bldg-02) LEVEL 1 FLOOR PLAN

NORTH SOURCE: K2A ARCHITECTURE & INTERIORS

INSITE ENVIRONMENTAL, INC.

Figure 2-7A
FLOOR PLAN



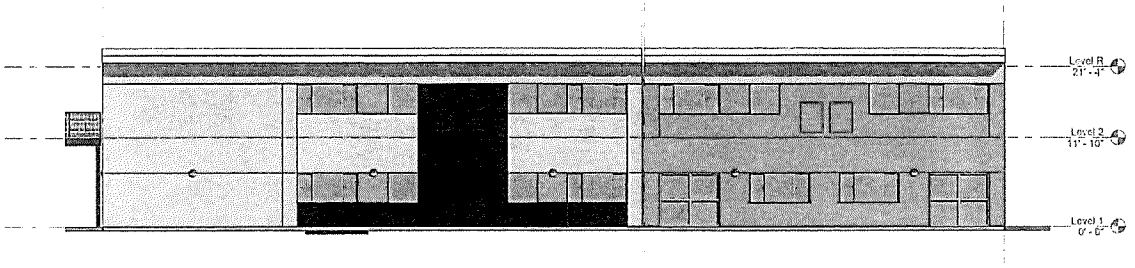
1 CLASSROOM BUILDING (Bldg-01) LEVEL 2 FLOOR PLAN

2 CLASSROOM BUILDING (Bldg-02) LEVEL 2 FLOOR PLAN

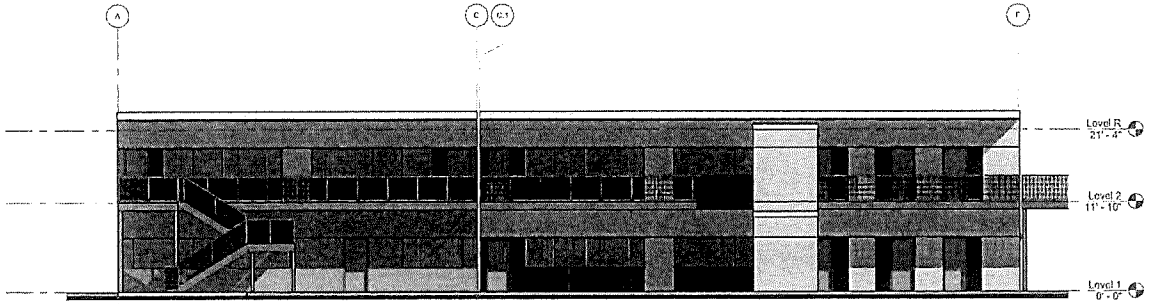
NORTH SOURCE: K2A ARCHITECTURE & INTERIORS

INSITE ENVIRONMENTAL, INC.

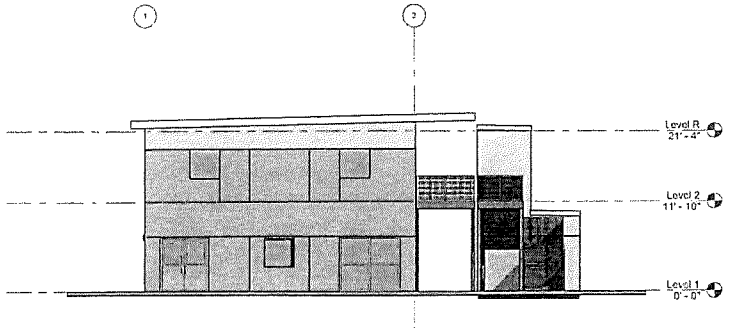
Figure 2-7B
FLOOR PLAN



1 CLASSROOM BUILDING (Bldg-B1) WEST ELEVATION



2 CLASSROOM BUILDING (Bldg-B1) EAST ELEVATION

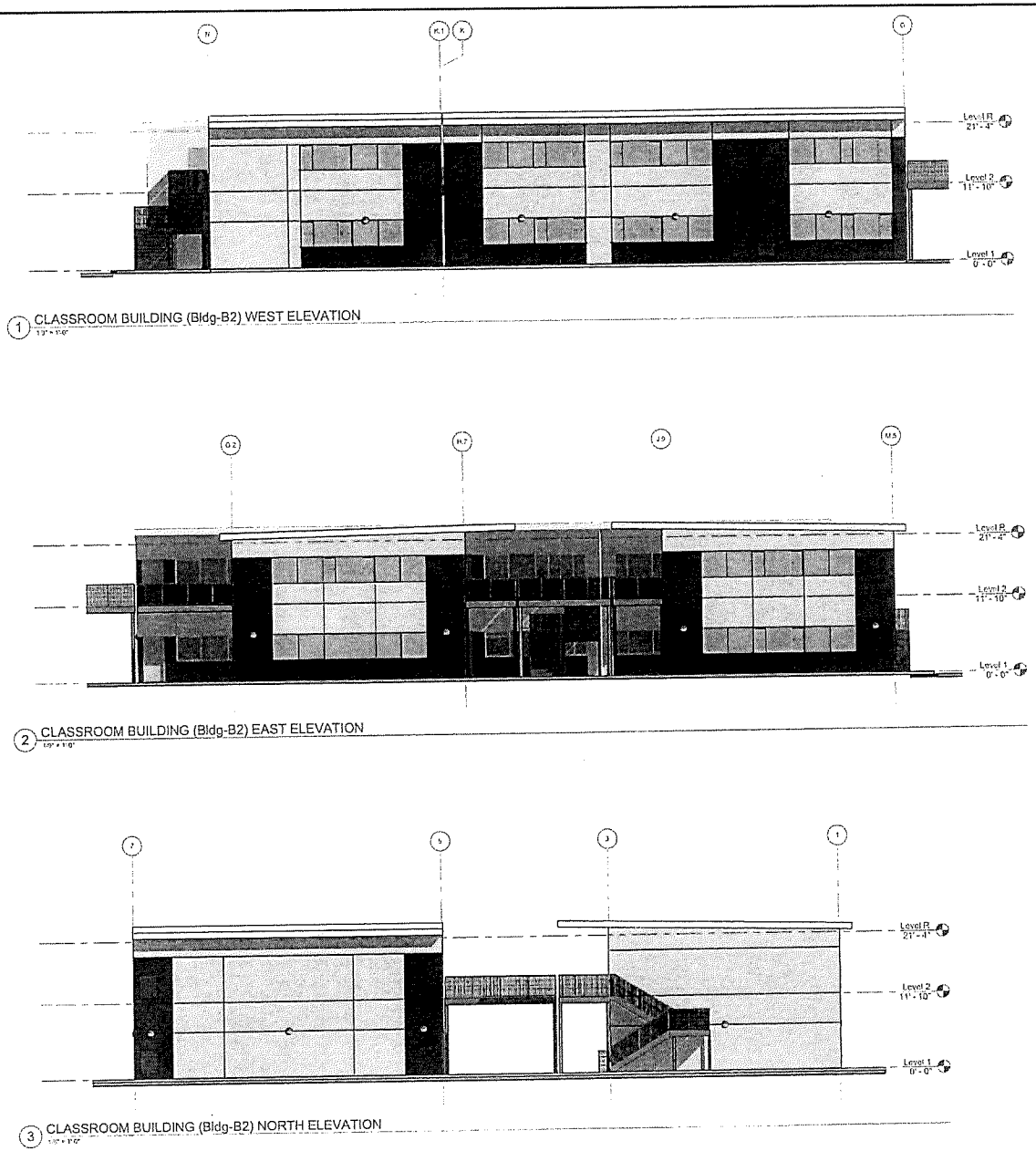


3 CLASSROOM BUILDING (Bldg-B1) SOUTH ELEVATION

NORTH SOURCE: K2A ARCHITECTURE & INTERIORS

INSITE ENVIRONMENTAL, INC.

Figure 2-7C
ELEVATION PLAN



NORTH SOURCE: K2A ARCHITECTURE & INTERIORS

INSITE ENVIRONMENTAL, INC.

Figure 2-7D
ELEVATION PLAN

A. GENERAL PROJECT DESCRIPTION:

1.	**Project Title:**	East Palo Alto Phoenix Academy
2.	**Project Entitlements:**	Approval by Aspire Public Schools and Division of the State Architect
3.	**Lead Agency Name and Address:**	Aspire Public Schools 1001 22nd Avenue, Suite 200 Oakland, CA 94606
4.	**Contact Person and Phone Number:**	Stephanie Wilson, Director for Growth & Strategy (510) 434-5020
5.	**Project Location:**	1039 and 1063 Garden Street East Palo Alto, San Mateo County, California
6.	**Project Sponsor's Name and Address:**	College for Certain, LLC 1001 22nd Avenue, Suite 200 Oakland, CA 94606
7.	**General Plan Designation and Zoning:**	Low-Medium Density Residential R-1-5000 (Single-Family Residential)
8.	**Surrounding Land Uses and Setting:**	Low-Medium Density Residential
9.	**Other public agencies whose approval is required:**	Division of the State Architect

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

C. LEAD AGENCY DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

■ I find that although the proposed project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

James Willcox, CEO
Aspire Public Schools

6/24/16
Date

D. EVALUATION OF ENVIRONMENTAL IMPACTS

The foregoing environmental determination is based on the evaluation of the potential environmental effects of the proposed project, as documented in the following checklist and supporting documentation. The checklist has been prepared in accordance with the following requirements:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.

5) Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where the analysis(es) are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance

E. ENVIRONMENTAL CHECKLIST AND NARRATIVE EXPLANATION

1. AESTHETICS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	■	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	■	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	■	☐	☐

NARRATIVE EXPLANATION

Environmental Setting

The project site is located in a residential area in East Palo Alto. The eastern portion of the site contains a vacant lot with grasses and weeds, with a few scattered trees and shrubs and a concrete driveway that is the remnant of a former single-family residence. The western portion of the site contains a single-family residence in front, and greenhouse buildings in back.

The vicinity of the project site has mostly single-family residences. Portions of Garden Street have curb, gutter and sidewalk, while other portions have no improvements, including the project site frontage. Street trees in the western half of Garden Street are more mature in growth – the eastern half has fewer and smaller street trees. There are no parks or other significant open space in the area.

There is no substantial night lighting of the project site, other than lighting from the residence. Existing night lighting in the project area is predominantly exterior lighting from residences. There is limited street lighting on Garden Street.

Environmental Impacts and Mitigation Measures

Impacts on Scenic Vistas

As noted above, there are no parks or open space areas in the project vicinity. The nearest scenic resource is the shoreline of San Francisco Bay, several blocks to the east. Mountain views are available from the shoreline and to the west of East Palo Alto. However, given the substantial development in the area, these scenic views are significantly obstructed and generally unavailable. Since these views are not available, the project would have no impact on scenic vistas.

Level of Significance: No impact

Mitigation Measures: None required

Impacts on Scenic Resources and Visual Character

The visual character of the project site is that of a vacant lot and a residence with greenhouse buildings. The existing visual character is not considered to have a high value, as the vacant lot is overgrown with mostly grasses and weeds, and several structures adjacent to the residence show some signs of deterioration. A new school building would likely improve the aesthetic character of the site and vicinity. Although the project proposes two-story structures in an area with mostly one-story residences, the project would not substantially conflict with the height characteristics of the area, as there are also a few two-story residences. The project would also improve the street frontage with curb, gutter and sidewalk.

The project would require the removal of some trees, most of which are ornamental and have no special aesthetic value. There is a mature tree on the vacant lot that may be considered aesthetically pleasing. However, it is not under special federal, state or local protection. In addition, the project proposes to plant trees on the site to provide shade and visual appeal. Therefore, removal of trees on the project site would not have a significant aesthetic impact.

Level of Significance: Less than significant

Mitigation Measures: None required

Light and Glare Impacts

The proposed project would involve the replacement of an existing residence and greenhouse with a charter school, with its associated safety and security lighting facilities. Single-family homes surround the project site, and these areas may be subject to light or glare from the proposed school facilities. Since the predominant lighting comes from residences, and since only limited street lighting exists in the vicinity, the additional lighting from the proposed project may be at a level that could potentially disturb nearby residents. Although most school activities would end at approximately 5:00 PM, the school could have events and programs that occur occasionally at nighttime.

During the construction phase of the project, some temporary construction lighting may be required in the work area if construction must extend after dark. If located in the vicinity of existing residences, short-term impacts on adjacent properties could occur from lighting and associated glare. These impacts would be temporary and would cease once construction is completed. In addition, as discussed in the Noise section, the City's Noise Ordinance would prohibit construction activities during nighttime hours. Therefore, light and glare impacts due to construction would not be significant. However, light and glare impacts from school operations are potentially significant.

Level of Significance: Potentially significant.

Mitigation Measures:

1-1. All outdoor lighting on the project site shall use low-intensity fixtures, shall be shielded to minimize light overspill onto adjacent properties, and shall be limited to applications necessary for safety and security. If any lighting is used in the parking areas, pole heights shall be no higher than 20 feet and lights shall be shielded to minimize overspill.

1-2. All lighting on the project site, except that considered necessary for safety and security, shall be turned off no later than 9:00 PM, unless a school program occurs after this time, in which case lights shall be turned off no later than one hour after the conclusion of the program.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for project lighting design and installation in accordance with the mitigation measures.

Monitoring: The Lead Agency will be responsible for ensuring compliance with the mitigation measures.

2. AGRICULTURE AND FOREST RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Dept. of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by	☐	☐	☐	■

Government Code section 51104(g))?

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

NARRATIVE EXPLANATION

Environmental Setting

The project site is located in a developed area of East Palo Alto. There are no agricultural operations on the project site or in the vicinity. No forests for timber or for other uses are located in the vicinity – the trees on the project site and in the vicinity are mostly street or ornamental trees.

Environmental Impacts and Mitigation Measures

Impacts on Agricultural and Forest Resources

As noted above, there are no agricultural or forest operations on the project site. The project would not involve the conversion of farmland or forest land. The 2008 Important Farmland Map of San Mateo County indicates that the project site and vicinity is on land designated "Urban and Built-Up Land." The project site is not zoned for agricultural or timberland use. Therefore, the project would have no impact on agricultural or forest resources.

Level of Significance: No impact

Mitigation Measures: None required

3. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	☐	☐	☐	■
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☐	■
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	■

e) Expose sensitive receptors to substantial pollutant concentrations?	☐	■	☐	☐
f) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

The project site and East Palo Alto are located within the San Francisco Bay Area Air Basin. The Bay Area Air Quality Management District (BAAQMD) has jurisdiction over most air quality matters in the Air Basin. The BAAQMD covers all or part of San Mateo, Santa Clara, San Francisco, Alameda, Contra Costa, Marin, Sonoma, Napa and Solano Counties. The BAAQMD is tasked with implementing programs and regulations required by the federal and state Clean Air Acts.

The project site is located in what is called the Peninsula region, which extends northwest from San Jose to the Golden Gate. The most prominent feature in the Peninsula region is the Santa Cruz Mountains along its center. The mountain range blocks the marine layer from the Pacific Ocean. Because of this, the southeastern portion of the Peninsula – where the project site is located – experiences warmer temperatures and fewer foggy days than the coast. In Redwood City, the mean maximum summer temperatures are in the low 80s, compared with the mid-60s along the coast. Annual average wind speeds in the Peninsula range from 5 to 10 miles per hour (mph) and are generally from the west, although wind patterns east of the Santa Cruz Mountains are often greatly influenced by local topography. Air pollution potential is highest along the southeastern portion of the Peninsula, which is most protected from high winds and the marine layer fog (BAAQMD, 1999).

Both the State of California and the federal government have established ambient air quality standards for criteria air pollutants. The ambient air quality standards define clean air; the primary standards are established to protect the health of even the most sensitive individuals in our communities. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. In addition to the criteria pollutants, the California Air Resources Board also identifies other air pollutants as toxic air contaminants (TACs) - pollutants that may cause serious, long-term effects, such as cancer, even at low levels.

The Air Basin is considered a non-attainment area for ozone (which is formed in the presence of sunlight from emissions of nitrogen oxides and reactive organic gases) and respirable particulate matter (PM10 and PM2.5), because concentrations of these pollutants sometimes exceed the ambient air quality standards. Carbon monoxide is managed as a local pollutant of concern. Localized areas subject to high levels of traffic congestion may be subject to carbon monoxide levels in excess of ambient air quality standards.

Ozone is not emitted directly into the air, but is formed by a photochemical reaction in the atmosphere. Ozone precursors, which include reactive organic gases (ROG) and nitrogen oxides (NOx), react in the atmosphere in the presence of sunlight to form ozone. Because

photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials.

Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Few particles larger than 10 microns in diameter reach the lungs. Consequently, both the federal and state air quality standards for particulate matter apply to particulate matter 10 microns or less in diameter (PM10) as well as to particles less than 2.5 microns in diameter (PM2.5), which are carried deeper into the lungs. The main sources of particulate matter in the Air Basin include combustion, industrial processes, grading and construction, and motor vehicles (BAAQMD, 1999).

Motor vehicles are the primary source of CO emissions in most areas. Motor vehicles exhibit increased CO emission rates at low air temperatures. High CO concentrations occur in areas of limited geographic size, sometimes referred to as "hot spots." CO is generally not a pollutant of concern except in areas of high traffic congestion.

The BAAQMD has adopted rules and regulations designed to implement goals and programs required by the federal and California Clean Air Acts. The BAAQMD regulations that would be applicable to the project are summarized below:

> Regulation 6, Rule 1 (Particulate Matter General Requirements)
> This rule prohibits or limits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.

The BAAQMD adopted its *BAAQMD CEQA Guidelines* in 1999. The *Guidelines* define analysis methodology, thresholds of significance, and mitigation measures for the assessment of air quality impacts. This methodology was used in the analysis of the project. On June 2, 2010, the BAAQMD adopted an update to the *BAAQMD CEQA Guidelines*, establishing new thresholds of significance for criteria pollutant emissions, along with a new threshold of significance for greenhouse gases (see Section 7, Greenhouse Gas Emissions).

The City of East Palo Alto is a participant in the Community Air Risk Evaluation (CARE) program. The CARE program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area. The program examines TAC emissions from point sources, area sources and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. There are three phases to the CARE program. Phase I developed a preliminary emissions inventory for TACs for the year 2000, which was used to develop risk-weighted emission maps. In Phase II, BAAQMD is performing regional-scale and local-scale modeling to determine the significant sources of TACs and diesel particulate matter (diesel PM) in designated "priority communities" as well as for the entire Bay Area. East Palo Alto has been designated as one of the priority communities that would benefit from a Mitigation Action Plan aimed at reducing TAC emissions. In Phase III, BAAQMD plans to conduct an extensive exposure assessment to identify and rank the communities as to their potential TAC exposures and determine the types of activities that places them at highest

risk. The District will also pursue additional mitigation measures and provide a metric to assess their effectiveness in reducing overall exposures.

Environmental Impacts and Mitigation Measures

Project Construction Impacts

The proposed project would involve demolition of existing buildings and the re-grading and disturbance of the project site. These activities would involve the use of construction equipment and emissions associated with equipment use. Particulate matter is the pollutant of greatest concern with respect to construction activities. Construction-related emissions can cause substantial increases in localized concentrations of particulate matter.

The BAAQMD's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions (BAAQMD, 1999, p. 14). The BAAQMD has identified a set of feasible particulate matter control measures for construction activities. Implementation of these mitigation measures would reduce potential air pollutant emissions from construction activities to a level that would be less than significant.

Demolition of buildings on the site may involve the release of asbestos, as buildings constructed prior to 1980 may have asbestos-containing building materials. Section 8, Hazards and Hazardous Materials, describes the potential impacts associated with asbestos and any necessary mitigation measures.

Level of Significance: Potentially significant.

Mitigation Measures:

3-1. The Lead Agency and its contractors shall comply with the following Basic Control Measures, as set forth in Table 2 of the *BAAQMD CEQA Guidelines*:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand and other loose materials, or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily with water sweepers all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily with water sweepers if visible soil material is carried onto adjacent public streets.

3-2. The Lead Agency and its contractors shall use low-VOC exterior and interior coatings on all buildings.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency and contractors will be responsible for compliance with the mitigation measures.

Monitoring: The Lead Agency, in coordination with the BAAQMD, will be responsible for verifying compliance with the mitigation measures.

Project Operation Impacts

For many types of land use development, motor vehicles traveling to and from the project represent the primary source of air pollutant emissions associated with project operations. On June 2, 2010, the BAAQMD adopted new significance thresholds for emissions of specific criteria pollutants from project operations, which include emissions from motor vehicles. A project that generates criteria air pollutant emissions in excess of the annual or daily thresholds listed above would be considered to have a significant air quality impact.

Pollutant	Tons/year	Pounds/day
ROG	10	54
NOx	10	54
PM10 (exhaust only)	15	82
PM2.5 (exhaust only)	10	54

To estimate the emissions that project operations would generate, the URBEMIS 2007 Version 9.2.4 computer model was used. URBEMIS, recommended by the *BAAQMD CEQA Guidelines,* uses project-specific trip generation information, along with model default vehicle fleet mix, trip length, and trip-start information, to calculate criteria pollutant emissions from project-associated vehicle use. Area (non-vehicle) source emissions are also included in the results. Appendix A contains the results of an URBEMIS run performed for the proposed project. Based on the URBEMIS model, the project would result in the following emissions (both area and operational sources):

Pollutant	Tons/year	Pounds/day (summer)
ROG	1.03	6.28
NOx	0.98	4.71
PM10	1.66	9.10
PM2.5	0.31	1.72

The emissions estimated above were unmitigated emissions; that is, without mitigation measures that could be applied by URBEMIS. Based on the above results, the project would generate emissions below the significance thresholds for the criteria pollutants, even without mitigation. It should be noted that the project proposes bringing students from two separate campuses into one location. This consolidation would likely reduce the length of vehicle miles traveled, thereby reducing air pollutant emissions from motor vehicles. Moreover, as indicated in Chapter 2.0, Project Description, Aspire busing programs would be expanded, and the location of the project site is designed to encourage greater use of public transportation, which would further reduce motor vehicle use.

Level of Significance: Less than significant

Mitigation Measures: None required

Carbon Monoxide Emissions

The *BAAQMD CEQA Guidelines* state that localized CO emissions should be estimated for projects that meet one of the following conditions:

- Vehicle emissions of CO would exceed 550 pounds/day.
- Project traffic would impact intersections or roadway links operating at level of service (LOS) D, E or F, or would cause LOS to decline to D, E or F.
- Project traffic would increase traffic volumes on nearby roadways to 10% or more.

The potential traffic impacts of the project were evaluated in a traffic impact analysis (TIA) prepared by Hexagon Transportation Consultants. Section 15, Transportation, provides information on the TIA and its conclusions. The TIA indicates that the project would cause a decline in LOS on the Garden Street segment from the project site to Pulgas Avenue from A to D. While LOS D is the minimally acceptable LOS for streets, as set forth in the Circulation Element of the East Palo Alto General Plan, it does meet the CO analysis criteria under the *BAAQMD CEQA Guidelines.*

The *BAAQMD CEQA Guidelines* sets forth a procedure for estimating one-hour and eight-hour CO concentrations at intersections and along roadway segments most affected by a proposed project. This procedure was applied to Garden Street, where the most significant impacts related to CO are expected to occur. Based on this procedure and the traffic information provided by the TIA, it was estimated that the worst-case one-hour and eight-hour CO concentrations along Garden Street would be 4.67 parts per million (ppm) and 2.62 ppm, respectively. According to the *BAAQMD CEQA Guidelines,* impacts would be significant if a project contributes to CO concentrations exceeding the state CO one-hour and eight-hour standards of 20 ppm and 9 ppm, respectively. Since the project CO emission totals include background CO concentrations, these emissions would not contribute to concentrations exceeding the state's CO standards. As a result, the project would not have a significant impact on CO emissions.

Level of Significance: Less than significant

Mitigation Measures: None required

Air Toxics and Odors

The project is a charter school. It is not expected to generate any TACs. Since the project is in a residential area, it would not likely be exposed to any significant source of TACs. East Palo Alto's participation in the CARE program includes use of grant funds to replace and retrofit heavy-duty diesel engines, development of rules and regulations requiring reduction of TAC emissions from significant sources, development of land use guidance to reduce exposure risks to TACs, and coordination and collaboration with health departments and the community to address TAC emissions. Implementation of the CARE program would reduce overall TAC exposure in the long run, including diesel PM levels.

The project would not interfere with the goals of the CARE program, as it would not contribute any TAC emissions.

The project would not generate substantial adverse odors. The project is located in a residential area, and therefore is not likely to be subjected to any adverse odors. This issue is considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

4. BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (sections 17.11 or 17.12)?	☐	☐	☐	■
b) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	■
d) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
e) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	■
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	■	☐
g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

The project is located in a developed area of East Palo Alto. The project site contains a residence with auxiliary structures, and two greenhouse buildings. The site also contains a vacant lot covered with grasses and weeds, and a few trees and shrubs.

The East Palo Alto General Plan, in its Conservation and Open Space Element, identified the following natural plant and animal communities as important:

- Baylands adjacent to San Francisco Bay
- San Francisco Bay shoreline
- Cooley Landing
- San Francisquito Creek
- Significant tree stands

The first three natural communities are located east of the project site, with the nearest of these communities (baylands) located approximately one-half mile east. San Francisquito Creek is located approximately one mile to the south.

Environmental Impacts and Mitigation Measures

Impacts on Biological Resources

According to the Sensitive Habitats map of the San Mateo County General Plan Background Report (Chapter 1), no rare, endangered or unique species are located on the project site. The project is not located in sensitive natural community, as identified in the East Palo Alto General Plan. Since no streams flow through or adjacent to the project site, it is not within a riparian area. Since the project is located in a developed urban area, it is not within a wildlife corridor, nor is it an established native species nursery site.

No wetlands were identified on the project site. A Phase I Site Assessment of the project site reviewed a wetlands map of the area prepared using the USFWS Internet Wetland Interactive Mapper, which used high-altitude aerial photographs as the basis for its information. No federally protected wetlands were identified in the review. Also, a field survey did not reveal any vegetation characteristic of wetlands on the project site (IVI Assessment Services, 2009).

No habitat conservation plans or similar conservation plans apply to the project site. While some mature trees exist on the site, they have not received any special designation by State law or City ordinance. The East Palo Alto General Plan Conservation and Open Space Element Policy 2.3 calls for the preservation of existing and increasing the number of trees within the community. However, project plans do indicate the planting of trees that would replace the mature trees that would be removed. Overall, project impacts on biological resources would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

5. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource?	☐	☐	■	☐
b) Cause a substantial adverse change in the significance of a unique archaeological resource (i.e., an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person)?	☐	■	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	■
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	■	☐	☐

NARRATIVE EXPLANATION

Environmental Setting

The East Palo Alto area has been the site of settlement before the arrival of European-Americans. The first recorded inhabitants of what is now East Palo Alto were the Costanoan or Ohlone tribes. In 1798, the area was a portion of the Rancho de las Pulgas, the largest ranch in the Bay Area. In 1848, a wharf was built at the end of what is now Bay Road. This wharf provided the first port in what is now San Mateo County. In 1851, the town of Ravenswood, the first regularly platted town in San Mateo County, was established in the area and became a hub for shipping. The old Ravenswood wharf was known as Cooley's Landing, named after the man who bought the wharf and surrounding property. With the completion of the railroad between San Francisco and San Jose, port activity declined.

Starting in 1910, new subdivisions were developed on higher and better-drained land. In 1916, Charles Weeks founded the Weeks Poultry Colony, a cooperative venture called Runnymede, which lasted into the 1930s. In 1925, as the area developed, residents decided to name their community East Palo Alto. East Palo Alto grew to about 8,000 people after World War II. However, annexations by the cities of Palo Alto and Menlo Park during the 1960s and 1970s reduced the size of the community. East Palo Alto incorporated as a city in 1983.

The project site was originally part of the Faber Subdivision, the product of the subdivision of a portion of Clark Ranch in 1912. The parcel currently located at 1039 Garden Street had its current house and tank house building constructed about 1920. The property

changed hands several times, during which the greenhouse buildings were constructed, in about 1958. The use of the parcel as a wholesale/retail nursery occurred from 1957 to 2004, when the nursery was closed (Bamburg, 2010). The parcel at 1063 Garden Street previously contained a house that records indicate was built about 1922. A demolition permit for the parcel was dated 2004 (IVI Assessment Services, 2009). The 1063 Garden Street parcel is currently vacant.

Environmental Impacts and Mitigation Measures

Impacts on Archaeological Resources

Holman and Associates conducted an archaeological study of the project site. The study consisted of a literature review at the Northwest Information Center, a visual inspection of the project site, and hand augering of 22 locations on the site. The literature review revealed the existence of three prehistoric sites within one-quarter mile of the project site, but none on the site itself. None of the auger holes had evidence of intact or historically disturbed prehistoric archaeological deposits. No evidence of concentrated shellfish deposits or any of the other typical signs of Native American habitation were seen. The study concluded that the proposed project would have no impact on archaeological resources.

Development of the project site has the potential to unearth buried and/or previously undiscovered cultural resources. Proper treatment of any resources encountered would be necessary to avoid significant environmental effects. The following mitigation measures would address this issue

Level of Significance: Potentially significant

Mitigation Measures:

5-1. If any subsurface cultural resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist can examine these materials and make a determination of their significance. The Lead Agency shall be notified immediately and shall be responsible for mitigation of any significant cultural resources pursuant to the CEQA Guidelines.

5-2. If human remains are encountered at any time during the development of the project, all work within 20 feet of the find shall halt and the County Coroner shall be notified immediately. The Coroner shall contact the Native American Heritage Commission if the remains are identified as being of Native American origin. At the same time, the Lead Agency shall retain a qualified archaeologist to evaluate the archaeological implications of the finds. The Lead Agency shall follow CEQA Guidelines Section 15064.5(d) and (e), which details steps to be taken when human remains are found to be of Native American origin.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency will be responsible for retaining an archaeological monitor, if required, and for imposing cultural resource protection controls on grading and excavation contractors.

Monitoring: The Lead Agency will be responsible for approval of the archaeological monitoring area, and for review and approval of the archaeologist's recommendations if resources are encountered.

Impacts on Historical Resources

Urban Programmers conducted an historical evaluation on the 1039 Garden Street property. Since no structures are standing on the 1063 Garden Street parcel, no similar evaluation occurred for that location. The criteria used to evaluate the historical significance of the structures were those used for listing historic resources on the National Register of Historic Places and the California Register of Historical Resources.

The National Register of Historic Places sets standards based on age, architectural and historical integrity, and historical significance. The house at 1039 Garden Street met the age criteria, as it is over 50 years old. However, it failed the criteria for integrity, as the front façade of the house had been altered. It also failed the criteria for historical significance, as the house was not associated with any historical person or event, nor was it determined to embody the distinctive characteristics of a historical type, period or method. Therefore, the subject property was not considered individually significant when evaluated against the listing criteria of the National Register of Historic Places.

The California Register of Historical Resources has listing criteria similar to those for the National Register of Historic Places, but modified to include a range of historical resources that better reflect California history. The buildings on the 1063 Garden Street were determined to not meet the criteria for being associated with events or persons important in local, California or national history. They also were not determined to embody the distinctive characteristics of a historical type, period region or method. As mentioned in the previous impact discussion, the project site is unlikely to yield any archaeological deposits. Therefore, the buildings on the project site are not considered significant cultural resources, and impacts on these buildings would be less than significant. Mitigation measures outlined above would reduce any potential impact on resources that may be discovered during project construction.

Level of Significance: Less than significant

Mitigation Measures: None required

6. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	■
ii) Strong seismic ground shaking?	☐	☐	■	☐
iii) Seismic-related ground failure, including liquefaction?	☐	■	☐	☐
iv) Landslides?	☐	☐	☐	■
b) Result in substantial soil erosion or the loss of topsoil?	☐	■	☐	☐
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	■
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	■	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

The project site is located in an area containing soils identified as Botella-Urban land complex, according to soil survey by the Natural Resources Conservation Service. The Botella-Urban complex is a mix of 45% Botella clay loam and 30% urban land, with other soils constituting the remainder. The Botella soil is a very deep, well-drained soil. Permeability is moderately slow, runoff is slow, and the hazard of water erosion is slight. The complex has a moderate shrink-swell potential.

A soils report was prepared for the parcel at 1063 Garden Street. The report noted that the parcel is nearly level and had been previously developed for residential use. As part of report preparation, four borings were conducted on the parcel. The borings indicated that soils are likely to contain 0-4 feet of a mix of black silty clay and brown-tan sandy clay. No soils investigation was conducted for the parcel at 1039 Garden Street, the other portion of the project site.

The project site, along with East Palo Alto, is located in a region with active seismic faults. No known active faults exist within East Palo Alto. However, the San Andreas Fault is located approximately 8 miles west of the city, and the Hayward Fault is located along the eastern side of San Francisco Bay. The Monte Vista-Shannon Fault is located approximately six miles southwest of the fault, and a maximum earthquake magnitude of 6.7 occurring on this fault would lead to an intensity of X on the Modified Mercalli Intensity Scale (scale ranging from I to XII, with XII being most destructive). At an intensity

of X, groundshaking would be very violent and destruction would be widespread. Earthquakes occurring on the San Andreas, Hayward and other faults in the Bay Area could lead to intensities ranging from VII to IX, corresponding with damage ranging from significant nonstructural to heavy (ARCADIS, 2010).

Environmental Impacts and Mitigation Measures

Exposure to Geologic Hazards

Since no identified faults have been located in East Palo Alto, the project site would not be exposed to fault rupture hazards. Project structures would be exposed to potential ground shaking hazards, as would all structures in East Palo Alto. This potential hazard would be reduced to a less than significant level by implementation of seismic measures in the City of East Palo Alto's adopted Uniform Building Code, as amended by the City. The seismic measures in the Uniform Building Code are stricter than those in other parts of the state, in recognition of East Palo Alto's location in a seismically active region.

Given the nearby presence of San Francisco Bay and the relatively shallow groundwater levels (see Section 9, Hydrology and Water Quality), liquefaction is a potential hazard in East Palo Alto. Liquefaction is the loss of soil strength during strong ground motion, and is a particular hazard with less dense soils near water sources. A map from the Association of Bay Area Governments (ABAG) depicting areas of liquefaction susceptibility indicates the project is in an area of "moderate" susceptibility. The soils report prepared for the project site stated that liquefaction "is not likely" (Hartsog, 2010), but a preliminary geological hazards assessment indicated that liquefaction is a potential hazard at the site (ARCADIS, 2010). Since there is some indication that a hazard may exist on the project site, liquefaction is considered a potentially significant impact.

Other hazards, such as lateral spreading, landslides and collapse are unlikely, given the lack of faults on the project site and the relatively flat topography of the vicinity. Subsidence generally occurs in areas where excessive withdrawal of water, oil or natural gas occurs. The preliminary geological hazards assessment identified subsidence occurring in Santa Clara County due to groundwater withdrawal, but did not identify subsidence as a significant issue on the project site (ARCADIS, 2010).

Currently, ARCADIS is preparing a geotechnical investigation and design report for the project site. This report will address the applicable requirements of California Geological Survey Note 48 – Checklist for the Review of Engineering Geology and Seismology Reports for California Public Schools, Hospitals, and Essential Services Buildings. The Note 48 checklist includes a line for mitigation options for liquefaction, which requires a discussion of effectiveness of options to mitigate liquefaction effects and acceptance criteria for ground improvement schemes. The mitigation measure presented below would tie the mitigation options outlined in the design report to the project. The report is scheduled for completion in July 2010.

Level of Significance: Potentially significant

Mitigation Measures:

6-1. The Lead Agency and its contractors shall implement measures to minimize liquefaction hazards in accordance with the recommendations set forth in the geotechnical investigation and design report by ARCADIS, if the report identifies a liquefaction hazard. The measures shall at least meet the acceptance criteria required by California Geological Survey Note 48 for ground improvement measures.

Significance after Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for conforming building and site designs to the specifications of the geotechnical investigation and design report.

Monitoring: The Lead Agency, in coordination with the City of East Palo Alto Public Works Department, Building Division or with the Division of the State Architect as appropriate, will verify the incorporation of specifications into improvement plans and building designs.

Project Exposure to Soil Constraints

Project site soils may be exposed to potential minor erosion during construction activities. However, the site is relatively flat, and the generally clay soils are not highly susceptible to erosion. In addition, the project would be required to comply with the requirements of the San Mateo Countywide Water Pollution Prevention Program, which implements the National Pollutant Discharge Elimination System (NPDES) Permit No. CAS612008. The NPDES Permit and the Water Pollution Prevention Program places requirements related to construction activities, including a site inspection and control program, and implementation of Best Management Practices (BMPs) for erosion and sediment control. Section 8, Hydrology and Water Quality, further discusses the NPDES Permit and Water Pollution Prevention Program.

The project would be located on soils identified as having a moderate shrink-swell potential by the NRCS soil survey. The soils report for the project site stated that lower soil materials observed were not of high plasticity, indicating that these materials were not highly expansive (Hartsog, 2010). However, the soils report is preliminary, and a more detailed geotechnical report is being prepared. Therefore, construction impacts related to soils are potentially significant.

Level of Significance: Potentially significant

Mitigation Measures:

6-2. Prior to project construction, the Lead Agency shall submit to the Division of the State Architect the geotechnical investigation and design report for its review and approval. The report shall identify potential geotechnical problems associated

with project construction, and shall present design criteria that addresses these problems. Project design shall comply with Division of the State Architect criteria for school construction as related to geotechnical issues, and shall be incorporated in design and construction of the project.

Significance after Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for conforming building and site designs to soils report specifications.

Monitoring: The Lead Agency, in coordination with the Division of the State Architect, will verify the incorporation of specifications into improvement plans and building designs.

7. GREENHOUSE GAS EMISSIONS-- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

NARRATIVE EXPLANATION

Environmental Setting

Global climate change is a subject of scientific and public concern as well as of government action. Global climate change is understood to be the result of atmospheric concentrations of greenhouse gases (GHGs) that trap heat in the earth's atmosphere. GHGs are both naturally occurring and are emitted by human activity. GHGs include carbon dioxide (CO2), the most abundant GHG, as well as methane, nitrous oxide and other gases. Total worldwide emissions of GHGs in 2004 were estimated at 20,135 million metric tons of CO2 equivalent (MMT CO2e); U.S. emissions during the same year were estimated at 7,074 MMT CO2e.

GHG emissions are associated with the combustion of carbon-based fuels. Major GHG sources in California include transportation (40.7%), electric power (20.5%), industrial (20.5%), agriculture and forestry (8.3%) and others (8.3%). GHG emissions in California in 2004 were estimated at 484 MMT CO2e. A 2007 inventory of GHG emissions conducted by BAAQMD indicates that the San Francisco Bay Area generated 95.8 MMT CO2e. Two sectors – transportation and industrial/commercial – account for most of the GHG emissions in the Bay Area, each contributing an identical share (36.4%). Electricity/co-generation facilities contributed 15.9% of GHG emissions (BAAQMD, 2010).

The State of California is identifying strategies and implementing GHG emission reduction programs through AB 32, the Global Warming Solutions Act of 2006. AB 32 identifies global climate change as a "serious threat to the economic well-being, public health,

natural resources and the environment of California." The State adopted its Global Climate Change Scoping Plan in December 2008. The Scoping Plan proposes to achieve a 29% reduction in projected business-as-usual emission levels for 2020, which is assumed to achieve the 2020 goal of reducing GHG emissions to 1990 levels. Primary strategies addressed in the Scoping Plan include a regional cap-and-trade program, new industrial and emission control technologies, alternative energy generation technologies, advanced energy conservation in lighting, heating, cooling and ventilation, reduced-carbon fuels, hybrid and electric vehicles, and other methods of improving vehicle mileage.

The BAAQMD has established a Climate Protection Program. This program seeks to address climate change through District activities, including outreach and education campaigns, data collection and analysis, technical assistance, and support and leadership for local efforts to reduce emissions that contribute to climate change. In addition, the BAAQMD is preparing its 2010 Clean Air Plan (CAP), which would include an objective to reduce GHG emissions to 1990 levels by 2020 and 40% below 1990 levels by 2035. The 2020 objective is consistent with the reduction goals of AB 32, while the 2035 reduction objective is a prorated target based on the goal in the Governor's Executive Order S-3-05 to reduce GHG emissions to 80% below 1990 levels by 2050. The draft CAP proposes several new Energy and Climate Measures to reduce GHG emissions, including energy efficiency, renewable energy, urban heat island mitigation, and tree planting. BAAQMD is also currently updating its CEQA Guidelines to include thresholds of significance for GHG emissions, as well as guidance in analyzing and mitigating these emissions.

The City of East Palo Alto currently has no plans or ordinances of its own that are related to GHGs or climate change.

Environmental Impacts and Mitigation Measures

Project GHG Emissions

On June 2, 2010, the BAAQMD adopted thresholds of significance for GHG emissions. Under these thresholds of significance, projects that do not emit more than 1,100 metric tons of CO2e would be considered to have a less than significant impact on climate change. Based on the URBEMIS run conducted for the project (see Section 3, Air Quality), the project would generate an estimated 928.91 tons of CO2 per year from area and operational sources. Therefore, the project would not meet the threshold of significance for CO2e emissions, and impacts are considered less than significant.

BAAQMD has not established construction-related GHG emission thresholds of significance, since construction emissions are temporary and would cease once construction work is completed. For informational purposes, URBEMIS estimates that project construction would generate a total of approximately 90 tons of CO2.

Level of Significance: Less than significant

Mitigation Measures: None required

8. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	■
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	■
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	■	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

Hazardous Materials

The project site is located in a residential area of East Palo Alto. One parcel of the site contains a residence with two outbuildings and two greenhouse buildings, along with a burnt-out structure. The other parcel is vacant, but once contained a residence, and the previous owners indicated that a septic tank, a well and a pool had been on the parcel (Hartsog, 2010).

A Phase I Environmental Site Assessment (ESA) for the project site was prepared for the applicant by IVI Assessment Services, Inc. (2009); a Limited Phase II ESA for the parcel at 1039 Garden Street was conducted by IVI Environmental, Inc. (2010). The Phase I ESA was prepared consistent with the standard described by the American Society for Testing and Materials (ASTM), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-05*. The Phase I element of the report included a database search for agency records of potential contamination; a review of historic topographic mapping, aerial photos and other historical documents; a site visit and interviews with key persons associated with the site; and a visual survey to identify suspect asbestos containing materials (ACM). The Limited Phase II ESA consisted of the collection and analysis of 40 soil samples and five groundwater samples to determine the presence of organochlorine pesticide residues and other various potential contaminants where greenhouse buildings currently exist.

The Phase I ESA stated that, based on the presence of earthen floors in the barns and greenhouses on the 1039 Garden Street parcel and on the current and historical greenhouse use, there is a potential for the soil to harbor agricultural chemical residues. A previously conducted limited soil investigation performed within the current greenhouses revealed elevated levels of certain pesticide compounds within the upper six inches of the soil. Concentrations of heptachlor epoxide, dieldrin and DDT were found to exceed or possibly exceed regulatory agency screening criteria for residential soils with shallow groundwater. No detectable concentrations of organophosphorus pesticides or arsenic were identified. Nevertheless, the Phase I ESA recommended a more comprehensive subsurface investigation to determine the lateral and vertical contamination on the parcel. This investigation occurred as part of the Limited Phase II ESA, which is described later in this section.

With the exception of chemicals customarily used for routine building maintenance and cleaning and a few retail bags of fertilizer, the Phase I ESA did not note any hazardous chemicals stored on site. Six five-gallon plastic and metal containers within the former shed area of the fire-damaged building were observed, along with several one-gallon paint containers. No underground storage tanks (USTs) were identified on the project site, and the site was not identified on the state's list of registered UST facilities. There were no aboveground storage tanks observed on the site. No hazardous waste was observed or reported on the site, and the site was not on the U.S. Environmental Protection Agency database of sites under RCRA. There was no evidence of significant soil staining, stained pavement or stressed vegetation observed.

The Limited Phase II ESA included 20 soil borings over the parcel on 1039 Garden Street, within each greenhouse where pesticides were applied, in areas where chemicals were observed to be stored, and adjacent to the irrigation well and five 55-gallon drums. The Phase I ESA did not note the presence of these drums. Five of the borings were used to collect groundwater samples, while the remaining borings were used to collect soils samples at two levels each. Analysis of the soil samples revealed several pesticides. Specifically, chlordane, dieldrin, DDD, DDE, DDT and heptachlor were found in samples to exceed their environmental screening levels (ESLs), based on the *Revised May 2008 San Francisco Bay Region Regional Water Quality Control Board (RWQCB) Screening Values for Environmental Concerns at Sites with Contaminated Soil and Groundwater.* A

laboratory analysis of the groundwater samples identified dieldrin, DDE and DDT as exceeding their ESLs.

Red Hills Environmental, inc. conducted a more intensive assessment of the 1039 Garden Street parcel. This assessment took soil samples in the greenhouses, near the residence, around an outbuilding damaged by fire, and around a pesticide mixing area in front of the western greenhouse. It also took water samples from an on-site well. Analysis of the samples indicated soil contamination around the pesticide mixing area, mostly pesticides identified in the Limited Phase II ESA along with petroleum hydrocarbons. Elevated levels of dieldrin were found in the greenhouse soils, and elevated levels of eldrin and lead were found in samples taken near the residence. Elevated levels of arsenic and vanadium were found in soils throughout the sample area, but these were determined to be background concentrations. Contamination of soils in all areas occurred at shallow levels – no greater than 0.5 feet deep.

Analysis by Red Hills of the well water samples indicated only very low concentrations of pesticides, contrary to the results of the Limited Phase II ESA groundwater analysis. Except for MTBE, water from the well did not contain any substances that exceeded ESLs (Red Hills Environmental, 2010). The apparent contradiction between the analyses by IVI and Red Hills may be explained by sediments in the groundwater sample containing residual chemicals, which may cause false positive measurements of dissolved chemicals. Since the pesticides measured in groundwater samples are sparingly soluble in water, and elevated concentrations of pesticides in soil were not measured at the groundwater sampling locations, it is likely that the detections in IVI's investigation were not representative of dissolved concentrations in groundwater – a conclusion supported by the results of the sampling of the on-site well (Jordan and Graf, 2010).

The Phase I ESA reviewed records to determine if any adjacent properties have hazardous material issues. According to a report prepared for the ESA by Environmental Data Resources, Inc., the adjacent northern property on 1010 Runnymede Street was listed on the Leaking Underground Storage Tank/Spills, Leaks, Investigations and Cleanups (LUST/SLIC) database. According to a soil remediation work plan for this property, shallow soils were impacted in isolated locations by pesticides in excess of ESLs. From review of site maps showing soil contamination concentrations, it does not appear that soil contamination from this property has migrated onto the project site.

Other Hazards

The Palo Alto Airport is located adjacent to and southeast of East Palo Alto. The East Palo Alto General Plan identifies a Proposed North Safety Zone – an area beyond the northern end of the airport runway that is considered the area of greatest hazard in East Palo Alto. This area is entirely included within open space and undeveloped land. An administrative draft of a Comprehensive Land Use Plan (CLUP) for Palo Alto Airport indicates that the project site would be in the airport's Traffic Pattern Zone. While the CLUP discourages the location of schools in the Traffic Pattern Zone, it does not prohibit them. Concern about the safety of structures near Palo Alto Airport has been heightened with the crash of a small plane into a residential area on Beech Street east of Pulgas Avenue on February 17, 2010. Based on records from the National Transportation Safety Board, there have been 10

accidents that have occurred at or near Palo Alto Airport since 1986, three of which have involved fatalities.

A preliminary geological hazards assessment by ARCADIS noted the existence of outcrops of serpentinite approximately 6-7 miles west of the project site. Serpentinite is a source of naturally occurring asbestos (NOA), which has been identified as a potential health hazard. While the project site is not located near these outcrops, one outcrop is located near the headwaters of San Francisquito Creek, the watershed of which the project site is located (ARCADIS, 2010).

Environmental Impacts and Mitigation Measures

Potential Exposure of Construction Workers and/or Students to Existing Environmental Contamination

The proposed project would involve the construction of a Grade 6-12 charter school on a residential/greenhouse and vacant parcels. The Phase I and II ESAs prepared for the project site indicate contamination of the soils by pesticides that exceed their ESLs. According to soil sampling of the site, the soil contamination appears to be limited to the first foot below the ground surface. As previously noted, analysis of groundwater samples indicate pesticide contamination, though the most recent assessment did not indicate contamination above ESL values. Since the project proposes to use water provided by the City's water supply system rather than by individual wells, the groundwater contamination would not affect students and employees.

Significant soil contamination was identified on the 1039 Garden Street parcel, mostly by pesticides but also by lead and petroleum hydrocarbons. Contamination has been identified at levels exceeding the set ESLs. Students and employees could be exposed to existing soil contamination, with its potential health hazards, if it is not removed. A review of the Red Hills Environmental report by the Jordan and Graf geotechnical firm concluded that soils in the area of the greenhouses were not contaminated at a level that required remediation, but soils in the pesticide mixing area, residence, and chemical storage areas near the burned outbuilding and in front of the western greenhouse would require remediation (Jordan and Graf, 2010). Based on the reports and the review, the mitigation measures below recommend remediation of soils in all areas where contamination has been identified, including the greenhouse area.

Level of Significance: Potentially significant

Mitigation Measures:

8-1. The Lead Agency or its contractors shall remove and properly dispose shallow pesticide, lead, and petroleum hydrocarbon-impacted soil from the pesticide mixing area, the greenhouses, the site residence, and the two chemical storage areas prior to commencement of school operations. These soils shall be stockpiled on site and re-sampled to profile the soil for proper disposal. Confirmation soil samples shall be collected in these areas.

8-2. The Lead Agency or its contractors shall remove and properly dispose shallow physical surficial debris. This debris will likely include primarily vegetation, glass, wood, precipitated salt, metal, chicken coop debris, and the burned building.

8-3. All on-site water supply wells shall be properly abandoned, in accordance with the procedures of the San Mateo County Health System, Environmental Health Division.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency will be responsible for all required cleanup or remediation activities in compliance with applicable federal, state and local regulations.

Monitoring: The Lead Agency, in coordination with the San Mateo County Health System as appropriate, will be responsible for ensuring that all required cleanup and related reporting activities have been complied with prior to and during construction.

Asbestos, Lead Paint and Radon

The Phase I ESA did not identify any friable ACM in readily accessible areas. However, non-friable resilient floor finish assemblies and wall assemblies in the residences, and built-up roofing system in the residences and barns, may contain asbestos. In addition, inaccessible mastic and caulking in the buildings may contain asbestos. Demolition activities associated with the project could release asbestos fibers into the air. Asbestos fibers have been determined to be a health hazard when inhaled, with no safe level of exposure.

The project is subject to BAAQMD Rule 11-2, which sets forth regulations for the demolition and removal of structures with ACM. For demolition and removal, Rule 11-2 requires the implementation of several procedures, including the wetting or the exhaust and collection of ACM, containment of ACM, and a survey of buildings for ACM prior to demolition. Compliance with BAAQMD Rule 11-2, along with conditions of the demolition permit issued by the City of East Palo Alto, would reduce potential asbestos impact to a level that is less than significant.

As previously noted, serpentinite was identified near the headwaters of San Francisquito Creek. A concern is that serpentinite sediment, containing NOA, may have been carried down the watershed and deposited with soils in the project vicinity. In a Preliminary Environmental Assessment (PEA) conducted on a proposed school site on Myrtle Street – approximately two blocks southeast of the project site – Cornerstone Earth Group assessed the potential for NOA. The PEA noted that soil samples were taken at two school sites in the nearby Menlo Park City School District, and the assessment revealed that NOA was generally found in concentrations near or below 0.001%. At these concentrations, no further actions were recommended.

The Cornerstone PEA noted that the Myrtle Street school site is located in the same watershed as the Menlo Park District school sites. It concluded that, while trace amounts of NOA could be present at the Myrtle Street site, it would likely be at significantly lower amounts due to its greater distance from the serpentinite outcrop than the Menlo Park sites. Since the project site is in the vicinity of the Myrtle Street site, it is likely that soil conditions at the project site are similar to those at the Myrtle Street site. Therefore, the project site is likely to have very low concentrations of NOA. The Cornerstone PEA also concluded that no further evaluation of NOA at the Myrtle Street site appears warranted at this time. Therefore, it is concluded that NOA at the project site appears to be not a significant issue requiring further action.

The Phase I ESA indicated that, due to the age of the structures on the project site, the use of lead-based paint (LBP) is suspected. Paints containing lead were used prior to their ban by the Consumer Product Safety Commission in 1978. Most of the structures on the project site were constructed prior to 1978. LBP removal during demolition is of health concern for workers, and debris containing LBP is considered hazardous. Regulations related to the handling of LBP are complex and may require the use of trained workers, testing and characterization of waste materials and monitoring of worker exposure, among other things. Adherence to the applicable regulations, which is required by mitigation measures below, would reduce potential air toxic effects associated with LBP to a less than significant level.

The Phase I ESA evaluated the potential occurrence of radon on the project site. Based on statistical information maintained within the U.S. Department of the Interior and the U.S. Geological Survey's *Geologic Radon Potential* (1993), radon concentrations in San Mateo County average 0.8 picocuries per liter (pCi/L), which is below the 4.0 pCi/L action level established by the U.S. Environmental Protection Agency. Based on this data, the ESA considers it unlikely that radon would represent a significant environmental concern.

Level of Significance: Potentially significant

Mitigation Measures:

8-4. The Lead Agency shall obtain a demolition permit from the City of East Palo Alto and comply with asbestos emissions control requirements. The Lead Agency and its contractors shall comply with the provisions of BAAQMD Rule 11-2 for the removal of asbestos materials.

8-5. The Lead Agency and its contractors shall employ appropriately trained workers and abatement procedures, and shall dispose of lead-containing wastes as required by all applicable federal and state regulations.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for compliance with the above regulations and standards during project demolition.

Monitoring: The Lead Agency, in coordination with the BAAQMD and the City of East Palo Alto Public Works Department, Building Division or the Division of the State Architect as appropriate, will be responsible for ensuring that asbestos and lead paint removal criteria are complied with.

Use of Hazardous Materials During Construction

Project construction would involve use of materials considered hazardous. Construction and maintenance vehicles would transport and use fuels and fluids in ordinary quantities. The amount of motor vehicle fluids that would likely be released would be minimal, limited at most to small leaks. Other substances that may be used in the construction process would be ordinarily stored in approved containers, and used in relatively small quantities, and in accordance with the manufacturers recommendations and/or applicable regulations. The potential release of hazardous materials would be minimal, and therefore is considered a less than significant impact.

Level of Significance: Less than significant

Mitigation Measures: None required

Airport Hazards

As previously noted, the project site is located within the proposed Traffic Pattern Zone of the Palo Alto Airport, according to the administrative draft of the airport's CLUP. According to the administrative draft CLUP, the Traffic Pattern Zone has the lowest level of exposure to potential aircraft accidents of any of the designed safety zones. As previously noted, the CLUP would not prohibit schools in the Traffic Pattern Zone.

The Lead Agency received a letter from the California Department of Education dated May 5, 2010. This letter included an attached letter from the California Department of Transportation, Division of Aeronautics, dated April 30, 2010. The Division of Aeronautics letter confirmed the location of the project site in the Traffic Pattern Zone of Palo Alto Airport, and noted that children's schools should generally not be permitted in this zone unless no feasible alternatives are available. The Department of Education requested a discussion of alternative locations for the project. In response, the Lead Agency sent a letter, dated May 26, 2010, which included a list of 14 alternative locations for the project that were evaluated and determined to be infeasible. The Department of Education acknowledged receipt of this letter on May 28, 2010, and indicated that the project may be pursued at the proposed location on Garden Street.

As previously noted, an aircraft accident occurred in a residential area in southeastern East Palo Alto in February 2010, within one mile of the project site. Although the investigation into the accident is ongoing, preliminary results indicate that foggy conditions at the airport contributed to the accident. The foggy conditions apparently made it difficult for the pilot to see the transmission lines and transmission tower the aircraft struck, leading to the crash (Gonzales, 2010). This is the first accident on record in the National Transportation Safety

Board database in which an aircraft from Palo Alto Airport crashed within the East Palo Alto city limits. Most accidents on record have occurred on or near the airport runway.

Given the relative infrequency of aircraft accidents occurring within the city limits, and the location of the proposed project in the zone of the lowest probability of accidents, the potential exposure of students and employees to airport hazards is considered low.

Level of Significance: Less than significant

Mitigation Measures: None required

Interference with Emergency Evacuation Plans

Construction of the new facilities would involve no effect on operation of state or local emergency evacuation plans except through interference with use of public streets and highways. Project construction could involve some intermittent work in the area of public streets but would not require street closure. Construction equipment is mobile and can be relocated on short notice so that any interference with emergency response or evacuation would be minimized.

Level of Significance: Less than significant

Mitigation Measures: None required

9. HYDROLOGY AND WATER QUALITY -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	■
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	■
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	■	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	■

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?	☐	■	☐	☐
f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	■
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	■
h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	■	☐
i) Inundation by seiche, tsunami, or mudflow?	☐	☐	■	☐

NARRATIVE EXPLANATION

Environmental Setting

Two water bodies – San Francisco Bay and San Francisquito Creek – are located adjacent to East Palo Alto. San Francisco Bay is the City's eastern boundary. San Francisquito Creek forms East Palo Alto's boundary with Palo Alto to the south. It flows into San Francisco Bay. The project site is approximately one mile west of the San Francisco Bay shoreline, and approximately one mile north of San Francisquito Creek. There are no water bodies on the project site or in the vicinity.

East Palo Alto is within the boundaries of the San Mateo Subbasin of the Santa Clara Valley Groundwater Basin. The groundwater basin is not adjudicated or otherwise regulated, and has not been identified or projected to be in overdraft by the California Department of Water Resources. The groundwater in the San Mateo Subbasin tends to be quite hard and have high concentrations of iron and manganese (Integrated Resource Management, 2006). Based on borings conducted as part of a soils report for the parcel at 1063 Garden Street, the depth to groundwater at the parcel was eight to nine feet below the ground surface (Hartsog, 2010).

The project site is within Zone X of the Flood Insurance Rate Map (FIRM) No. 06070800 01B, as prepared by the Federal Emergency Management Agency (FEMA). Zone X indicates that the area is determined to be outside the 500-year floodplain. Land use planning is typically concerned with areas inside a 100-year floodplain (area likely to be flooded by a storm event that occurs on average once every 100 years).

The water quality of San Francisquito Creek is generally poor. Pollutants from human activities are the primary source of the poor water quality, including pollutants from storm water drainage. In addition to the elevated levels of iron and manganese previously mentioned, groundwater beneath East Palo Alto is prone to salt water intrusion, due to its proximity to San Francisco Bay (Integrated Resource Management, 2006). Currently, East Palo Alto does not obtain its water supply from either source (see Section 17, Utilities and Service Systems). Section 8, Hazards and Hazardous Materials, discusses groundwater quality at the project site.

Environmental Impacts and Mitigation Measures

Impacts on Surface Water and Water Quality

Existing project site drainage would be altered through site grading and directed into the City's storm drainage system. Sufficient drainage capacity exists within this system to serve the project, as discussed in Section 17, Utilities and Service Systems. The proposed project would involve no other direct or indirect effects on surface water quantity.

The proposed project would involve disturbance of soils and other materials by demolition and construction activities, which would lead to the potential for erosion, discharge of sediment, and the discharge of other construction-related pollutants from the site in storm water runoff. Other construction-related pollutants may include elevated pH from runoff contact with soils stabilizers, cement, petroleum hydrocarbons and toxic materials. The project would not involve a direct storm water discharge to surface waters; storm water discharges from the site would be to the City's storm drain system, which drains to surface waters in the project vicinity.

The proposed school use of the site would result in the generation of urban runoff from buildings, paving and landscaped areas, and resulting contributions of urban runoff pollutants to the City's storm drainage system. These pollutants may include sediments, heavy metals, petroleum hydrocarbons, microbial pathogens, pesticides, materials toxic to aquatic life, and nutrients that may contribute to depressed dissolved oxygen levels. As with construction runoff, post-construction urban runoff would be discharged to the City's storm drain system, and not directly to surface waters in the project vicinity.

The State Water Resources Control Board (SWRCB) has the responsibility under the federal Clean Water Act and National Pollutant Discharge Elimination System (NPDES) for the control of storm water quality. The state has adopted general permits for construction activity that would apply to the project. Additional storm water regulation is established in the NPDES area-wide municipal separate storm sewer system (MS4) permit (No. CAS612008), issued through the San Francisco Bay Regional Water Quality Control Board (RWQCB). The NPDES Permit requires affected jurisdictions, including the City of East Palo Alto, to have projects that create and/or replace 10,000 square feet or more to implement Low Impact Development (LID) source control, site design and stormwater treatment on-site or at a joint stormwater treatment facility. Source control measures shall include among other requirements the following:

- Minimization of stormwater pollutants of concern in urban runoff.
- Properly designed trash storage areas.
- Landscaping that minimizes irrigation and runoff, promotes surface infiltration, and minimizes use of pesticides and fertilizers.
- Efficient irrigation systems
- Storm drain system stenciling or signage.

Site design measures shall include among other requirements the following:

- Minimize compaction of highly permeable soils.

- Minimize impervious surfaces.
- Minimize stormwater runoff by directing runoff from roofs, walkways, driveways and uncovered parking lots onto vegetated areas; and by constructing walkways, driveways and uncovered parking lots with permeable surfaces, among other measures.

LID stormwater treatment measures include harvesting and re-use, infiltration, evapotranspiration or biotreatment. The NPDES Permit recognizes that on-site stormwater treatment may be infeasible at some project sites, including sites where groundwater would be within 10 feet of the base of a treatment measure, or sites where pollutant mobilization in the soil or groundwater is a documented concern.

Construction activities that disturb one or more acres of soil, or that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are subject to the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ), issued by the SWRCB. Effective July 1, 2010, all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Level of Significance: Potentially significant

Mitigation Measures:

9-1. The Lead Agency shall comply with the provisions of the Construction General Permit, including the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for the project and filing of a Notice of Intent (NOI) with the State Water Resources Control Board prior to commencement of construction activity. The SWPPP shall be available on the construction site at all times.

9-2. The Lead Agency shall comply with all applicable requirements set forth in the NPDES Storm Water Permit No. CAS612008, including implementation of applicable LID source control, site design and stormwater treatment measures. The Lead Agency and the San Francisco Bay RWQCB shall determine the provisions applicable to the project.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for design and construction of storm water quality improvements, for compliance with applicable City codes related to storm water, for preparation of annexation documents, and for preparation and submittal of the SWPPP.

Monitoring: The Lead Agency, in coordination with the City of East Palo Alto Public Works Department, will be responsible for review and approval of storm water quality improvement plans. The Lead Agency, in coordination with the San Francisco Bay RWQCB, will monitor project compliance with NPDES Permit provisions.

Project Effects on Groundwater

The project would have no substantial effect on groundwater. Grading and excavation associated with the project would be relatively shallow in nature and would not impact groundwater resources. The project would derive its water supply from the City of East Palo Alto's potable water system, which is supplied by surface sources.

Level of Significance: Less than significant

Mitigation Measures: None required

Flooding and Other Water Hazards

As noted in the Environmental Setting, the project site is located in an area designated by FEMA as Zone X, which is outside the 100-year floodplain used as the basis for flood hazard planning. The nearest water body with levees is San Francisquito Creek, which is one mile south of the project site. The East Palo Alto General Plan does not indicate flooding hazards at the project site should levee failure occur at San Francisquito Creek. Tsunami maps released by the state in 2009 indicate that the project site is outside the potential tsunami inundation area, which covers the baylands east of the city's developed area. The project would not be affected by identified water hazards in the area.

Level of Significance: Less than significant

Mitigation Measures: None required

10. LAND USE AND PLANNING – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of	☐	☐	■	☐

avoiding or mitigating an environmental effect?

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan? ☐ ☐ ☐ ■

NARRATIVE EXPLANATION

Environmental Setting

The proposed project is located in an urbanized area of East Palo Alto that has been developed primarily for residential uses. The proposed project site was previously developed and is currently used for commercial and residential purposes and would be redeveloped for the proposed school.

The project site consists of two parcels, with street addresses of 1039 Garden Street and 1063 Garden Street. The parcel at 1039 Garden Street currently contains a single-family residence with ancillary structures. One of these structures is apparently used in part as a carport, with a gravel area in front. Behind this residence are two greenhouse buildings. Both wooden and chain link fencing surround this parcel.

The parcel at 1063 Garden Street currently is vacant, although there was a single-family residence formerly on the lot. This residence, which was constructed about 1922, was razed in 2004 along with an associated garage. The previous owners advised that a pool, well and septic system were also on the parcel (IVI Assessment Services, 2009; Hartsog, 2010). A concrete driveway and other debris are what remain of the previous use, and the parcel is now mostly overgrown with grasses and weeds. Mostly wooden fencing surrounds the project site, although chain link fencing has been installed along the Garden Street frontage.

Existing land uses surrounding the site are predominantly residential. A parcel with a street address of 1045 Garden Street is located between the parcels constituting the project site. This parcel contains a single-family residence located near Garden Street. Wooden fencing surrounds this parcel. Land uses immediately adjacent to the west, north and east of the project site are single-family residential. Garden Street is located south of and immediately adjacent to the project site. Across Garden Street from the project site are more single-family residences.

The project site is located within the East Palo Alto city limits and within the Planning Area of its General Plan. The General Plan designation for both parcels constituting the project site is Low/Medium Density Residential. Lands adjacent to the project site are also designated Low/Medium Density Residential, consistent with the existing use of this area.

The East Palo Alto Zoning Ordinance applies to the project site and vicinity. The zoning for both parcels that are part of the project site is R-1-5000, Single-Family Residential. This is the same zoning for all surrounding parcels. The 5000 figure refers to the minimum lot size in the R-1 zone, in terms of square feet.

As discussed in Section 4, Biological Resources, no habitat conservation plans or other conservation plans are applicable to the project site.

Environmental Impacts and Mitigation Measures

Project Effects on Land Use Plan Designations and Zoning

The proposed project would construct a charter school on parcels zoned R-1-5000. The City of East Palo Alto's Zoning Ordinance allows schools in residential zones, with approval of a conditional use permit. The R-1 zone is consistent with the Low/Medium Density Residential designation of the parcels. Therefore, the project would not require a rezoning or a General Plan Amendment to change the designation. The project will seek approval from the Division of the State Architect, and not from the City of East Palo Alto. Therefore, the project would not need City approvals, such as conditional use permits. Project impacts on General Plan and zoning designations would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Land Use Conflicts Associated with the Project

The proposed project would juxtapose the proposed school with existing single-family residential uses in the area. The proposed project would not involve a substantial conflict with the adjoining single-family residential uses. Schools, including public schools, are routinely located in single-family and other residential areas without substantial conflict. The project does not involve significant outdoor use areas in the vicinity of these residences, and the project would include a masonry wall that would separate the uses as well as attenuate noise from vehicle circulation on the school site. Mitigation measures described in this document would reduce potential impacts on surrounding residential areas, including light and glare. As a result, the project would not result in a significant land use conflict.

Level of Significance: Less than significant

Mitigation Measures: None required

11. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	☐	☐	☐	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

There are no mining operations on the project site or in the vicinity. The San Mateo County General Plan mineral resource map did not identify any mineral resource deposits in the East Palo Alto city limits, including deposits classified as Mineral Resource Zone-2 (MRZ-2) by the State Geologist.

Environmental Impacts and Mitigation Measures

Impacts on Mineral Resources

There are no identified mineral deposits in East Palo Alto, or on the project site specifically. Therefore, the project would have no impact on mineral resources.

Level of Significance: No impact

Mitigation Measures: None required

12. NOISE – Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	■	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	■
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	■	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

The project site is located in an urbanized portion of East Palo Alto. Existing land uses surrounding the project site are predominantly low-density residential. There are no

commercial or industrial land uses in the area. Such uses may be significant sources of noise. The Palo Alto Airport, located adjacent to and southeast of East Palo Alto, is a significant noise source. However, as indicated in the East Palo Alto Noise Element, the project site is outside the 60-decibel noise contour of the airport. Typically, 60 decibels is the maximum noise level considered to be tolerable to noise-sensitive land uses such as residences and schools.

The existing ambient noise environment along the project site is defined primarily by traffic along Garden Street. Garden Street is classified in the East Palo Alto General Plan as a two-lane local roadway, which carries the least amount of traffic of the four classifications of city streets. The Noise Element of the General Plan focuses on the future arterial streets and collector streets identified in the Circulation Element. There are no noise contours for Garden Street, as it is not designated as a future arterial or collector.

For the purposes of evaluating noise impacts due to new projects, the criteria contained within the City of East Palo Alto's Noise Ordinance are used. The City's Noise Ordinance Chapter 8.52 Municipal Code) establishes maximum noise level exposures for noise-sensitive land uses. Table 3-1 provides the maximum exposures for both exterior and interior noise levels. Each of the noise level standards specified above shall be reduced by five dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises. In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in five dBA increments so as to encompass the background noise level.

Table 3-1
Noise Level Standards (dBA), Receiving Land Use:
Single and Multiple Family Residences, School, Hospital, Church, Public Library

Category	Cumulative Number of Minutes in Any One Hour Time Period	Daytime (7:00 a.m. – 10:00 p.m.)	Nighttime (10:00 p.m. – 7:00 a.m.)
Exterior Noise Levels			
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	60
5	0	75	70
Interior Noise Levels			
1	5	45	40
2	1	50	45
3	0	55	50

Source: City of East Palo Alto Noise Ordinance

Environmental Impacts and Mitigation Measures

Construction Noise

The proposed project would involve the demolition of existing structures, pavement and other existing site improvements and the subsequent construction of the proposed classroom, administration and other proposed structures and facilities. During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction, predominantly the use of heavy equipment, would generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature, and the Noise Ordinance would limit construction activities to the hours from 8:00 AM to 7:00 PM. Maximum noise levels would be intermittent and would be associated primarily with demolition, site preparation and paving activities.

Residential uses that adjoin the proposed project along University Avenue and North Sierra Nevada Street would be subject to short-term exposure to construction noise during the construction period. This noise increase would be of relatively short duration, and would occur primarily during daytime hours. Nevertheless, residences may be exposed to elevated levels of construction noise; therefore, the following mitigation measure shall be implemented.

Level of Significance: Potentially significant

Mitigation Measures:

12-1. Project plans and specifications shall require the use of mufflers for construction vehicles and equipment, to be installed and used in accordance with manufacturer's specifications.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for implementing the mitigation measure.

Monitoring: The Lead Agency will be responsible for ensuring that noise mitigation measures have been incorporated in plans and specifications and are observed during construction.

Noise Associated with Operation of Proposed Facilities

Noise associated with proposed school operations would involve on-site traffic noise during arrival and departure hours and noise associated with students leaving and entering classes during recesses and after-school hours. Traffic associated with student arrival and departure would travel past residences fronting Garden Street, including one residence that would be surrounded by the school (1045 Garden Street). Arrival and parking traffic would be routed along the project site boundaries adjacent to the back yard lines of residences fronting on Runnymede Street. Occasional service vehicle traffic would use this route

during the working day. Section 16, Transportation/Traffic, discusses potential traffic impacts in more detail.

A traffic impact analysis prepared for the project (available in Appendix E of this document) indicates that average daily traffic on Garden Street east of Clarke Avenue would double. This would likely increase the amount of traffic noise generated on Garden Street, affecting the adjacent residences. However, Figure N-1 of the Noise Element in the City of East Palo Alto General Plan depicts future noise contours (60 dB and 65 dB) along arterial and collector streets, based on anticipated traffic volumes. Noise contours were depicted for both Clarke Avenue and Pulgas Avenue, which are projected to carry twice the projected traffic volume on Garden Street with the project, and are likely to carry more traffic as development occurs in East Palo Alto. The 60 dB contour, generally used to determine exterior noise impacts, is relatively narrow along both roadways.

Noise generated by traffic on Garden Street was estimated with a spreadsheet program based on the Highway Traffic Noise Prediction Model developed by the Federal Highway Administration. The program used traffic volumes provided by the Traffic Impact Analysis conducted for the project (see Section 16, Transportation/Traffic). The noise analysis was conducted for the Garden Street segment from the project site to Pulgas Avenue, which was the segment analyzed in the traffic study. According to the traffic study, the Garden Street segment would have an average daily traffic volume of 2,006 with the project. Based on spreadsheet program calculations, the 55-dB noise contour around Garden Street with the project would extend 46 feet from the street centerline, and the 60-dB contour would extend 15 feet from centerline. Therefore, the 60-dB contour would not reach the residences along Garden Street.

Moreover, there are several factors that would mitigate the traffic noise. In the morning, traffic along Garden Street would be limited primarily to passenger vehicles and would be concentrated during an approximately one-hour period. In the afternoon, traffic would be reduced by the proposed dismissal schedule, which would spread out the number of students dismissed rather than concentrating dismissals at a specific time. As a result, traffic noise would not be sustained over an extended period of time. In addition, no traffic noise would be generated after school activities end, and during days when the school is closed. The school would encourage the use of public transportation, which is available along Clarke Avenue and Pulgas Avenue. Use of public transportation would reduce the amount of vehicle traffic to the school. Therefore, project-related traffic is considered to not have a significant adverse noise effect in the area.

All other school-related activities would occur within proposed structures and would not involve potential for noise effects on surrounding land uses. In addition, the school proposes a staggered schedule for release of students that would minimize noise (see Chapter 2.0, Project Description).

Level of Significance: Less than significant

Mitigation Measures: None required

Exposure of Proposed School Facilities to Existing Transportation and Other Noise Sources

The proposed school is considered a noise-sensitive land use and is subject to the noise standards described in the East Palo Alto Noise Ordinance. The project site is located in a residential area, where noise levels are generally low. There are no arterial or collector streets that pass by the project site, and no large industrial activities are located in the vicinity. As noted in the Environmental Setting, the project site is outside the 60-dB noise contour of Palo Alto Airport. Since the project site is not located near any significant noise sources, it would not be exposed to noise in excess of the standards established in the Noise Ordinance.

Level of Significance: Less than significant

Mitigation Measures: None required

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

NARRATIVE EXPLANATION

Environmental Setting

According to estimates by the California Department of Finance, the population of East Palo Alto on January 1, 2010 was 33,524 – an increase of 1.1% from its 2009 population and an increase of 13.6% from its 2000 U.S. Census population of 29,506. By comparison, the population of San Mateo County grew by 6.7% from 2000 to 2010. There were an estimated 7,799 housing units in East Palo Alto as of January 1, 2010 – an increase of just 708 units over the 2000 total. Of the total 2010 housing units, approximately 55.7% were single-family detached or attached residences. Approximately 37.6% were multifamily units in buildings with 5 or more units. The remaining units were in duplexes, fourplexes and mobile homes.

Environmental Impacts and Mitigation Measures

Project Impacts on Population and Housing

The project site does not propose any residential development; therefore, the project would not result in any direct population increase. There would be some improvements to

local infrastructure; however, the improvements would be to accommodate the project only. In addition, the project vicinity is built out, and so would be unable to accommodate additional residences. Therefore, the project would not indirectly induce population growth.

The proposed project would remove one single-family residence, thereby reducing the housing stock in East Palo Alto by that amount. Compared with the total number of housing units in the city, the loss of one housing unit is not considered substantial. Moreover, the property would be acquired by purchase from a willing seller, so no forced displacement would occur. It is possible that the residence at 1045 Garden Street may be acquired in the future by the school, with demolition of the residence a likely result. Again, the property would be acquired from a willing seller, and the loss of this housing unit would not be substantial. Population and housing impacts, therefore, are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

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

NARRATIVE EXPLANATION

Environmental Setting

The Menlo Park Fire Protection District provides fire protection services to the project site and East Palo Alto. The Fire District is a full-time, paid metropolitan fire department with a station at the corner of University Avenue and Runnymede Street (2290 University Avenue). This station has three full-time firefighters and a minimum of one paramedic and two EMTs on staff in a 24-hour time period, and has one Type 3 fire engine. The average response time to a call is under four minutes (Johnston, pers. comm.).

The East Palo Alto Police Department provides police protection services to the project vicinity. The Police Department has its station on 141 Demeter Street.

Public school services for East Palo Alto are provided by the Ravenswood City School District. The School District serves some 4,500 students in kindergarten through eighth grades in seven elementary schools, and a child development center serving preschool children. In addition, the School District holds charters for five charter schools, including the East Palo Alto Charter School. Public high school services are provided by the Sequoia Union High School District, which operates schools in cities from Menlo Park to San Carlos. The only high school facility in East Palo Alto is the East Palo Alto Phoenix Academy (EPAPA), a charter school operated by Aspire Public Schools.

The City of East Palo Alto's Community Services Department operates four public parks. The closest parks to the project site are Martin Luther King Jr. Park, a 3.5-acre facility in southeastern East Palo Alto, and Jack Farrell Park, a 5.5-acre facility located north of Bay Road. In addition, the Palo Alto Baylands Nature Preserve, owned and operated by the City of Palo Alto, is located approximately one-half mile east of the project site.

Environmental Impacts and Mitigation Measures

Impacts on Police Protection Services

The proposed project would involve a student population of 411 at full enrollment during school hours, with the addition of people attending events in the evenings. These changes would likely result in increases in demands for police protection services in the area. It should be noted that the students would transfer to the new school from existing campuses; therefore, overall demand for police services related to students would not likely change. However, it may become more concentrated at the project site and vicinity.

Project construction would, through the location of construction materials and equipment along the proposed project alignment, involve new crime opportunities during the construction period. These can be minimized by construction site security, addressed in mitigation measures below.

Level of Significance: Potentially significant

Mitigation Measures:

14-1. The Lead Agency shall ensure that the construction area is secure during the construction period when the developer is not on site. Measures may include, but are not limited to, fencing the project site and providing adequate security lighting without causing unnecessary illumination of adjacent residences.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency will be responsible for including construction security requirements in the project plans and specifications.

Monitoring: The Lead Agency will verify the inclusion of construction security requirements in plans and specifications.

Impacts on Fire Protection Services

Redevelopment of the project site would not add any substantial additional responsibilities to the Fire District. The project involves the demolition of a residence and greenhouses and construction of a charter school. Accessibility would be adequate, and the proposed structures do not involve any particular fire protection concerns. The project is subject to the California's Fire Code's standard regulations regarding placement of fire hydrants, adequacy of water supply to the site, and emergency access. For students and staff currently attending EPAPA, the project would be safer from a fire danger perspective than the existing facility, which is a converted warehouse/light industrial structure. However, infrastructure in the vicinity would need to be upgraded to ensure adequate access to water and adequate fire flows.

Level of Significance: Potentially significant.

Mitigation Measures:

14-2. The Lead Agency shall install fire hydrants and water distribution facilities that will provide fire flows that are adequate to support the City's existing ISO rating and that conform to adopted Building Code Fire Safety Standards for all of the uses proposed within the project area. The Lead Agency shall consult with the Menlo Park Fire Protection District on the number and location of hydrants and water distribution facilities.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency will be responsible for consultation with the Fire District and for the design and construction of the project in accordance with applicable requirements.

Monitoring: The Lead Agency, in coordination with the Menlo Park Fire Protection District, will verify that the applicable requirements have been incorporated into the project plans and specifications.

Impacts on Schools

The project site is a charter school and will accommodate approximately 411 6-12 grade students at full enrollment. The new school is scheduled to open in the fall of 2011 with 14 classrooms plus specialty rooms, a multipurpose building and administrative offices. The mission of a charter school is to target areas with high Title 1 eligibility, i.e., students from low-income families utilizing data that quantifies minority enrollment and eligibility. Construction and operation of the project would result in a beneficial effect on schools and

would not result in any negative effect on schools generally or on existing public school properties or school demand.

Level of Significance: Less than significant

Mitigation Measures: None required

Impacts on Parks and Recreation

Construction and operation of the proposed project would not involve any new population or demand for parks. Student activities would not result in any direct effect on existing parks and recreation facilities.

Level of Significance: Less than significant.

Mitigation Measures: None required.

15. RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	■	☐

NARRATIVE EXPLANATION

Environmental Setting

Issues associated with recreation have been addressed in the Parks portion of Section 14, Public Services, above.

Environmental Impacts and Mitigation Measures

Impacts on Recreation

Impacts on parks were discussed in Section 14, Public Services. The project was determined to have no impact on parks.

The project proposes the construction of a multipurpose building that would function as a gymnasium. The gymnasium is proposed for construction on the eastern portion of the project site, which is currently a vacant lot overgrown with grasses and weeds. This

building would have no impacts separate from those associated with the overall project. The gymnasium would be used for school activities only.

Level of Significance: Less than significant

Mitigation Measures: None required

16. TRANSPORTATION/TRAFFIC – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	■	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	■
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
d) Substantially increase hazards to a design feature (e g., sharp curves or dangerous intersections) or incompatible uses (e g, farm equipment)?	☐	■	☐	☐
e) Result in inadequate emergency access?	☐	☐	☐	■
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

The potential transportation effects of the project were addressed in a traffic impact analysis (TIA) prepared by Hexagon Transportation Consultants (2010). A copy of the TIA is available in Appendix E. The Appendix includes figures and tables not included in this section.

The TIA considers the potential effects of the project on street traffic in the project vicinity as well as potential effects on pedestrian, bicycle and transit facilities. The street traffic analysis, which comprises the majority of the TIA, identifies traffic operations with and without the proposed project using "Levels of Service" (LOS). LOS is a qualitative measure

of traffic operating conditions, whereby a letter grade of "A" thru "F" is assigned to an intersection or street segment. LOS A represents the best operating conditions, while LOS F represents the worst conditions. Specific definitions for LOS for both intersections and roadway segments are provided in the TIA.

The TIA addressed the potential traffic impacts of the project on 12 intersections and five roadway segments under three scenarios:

- Existing conditions
- Near-term conditions without the project
- Near-term conditions with the project

Figure 3-1 shows the study intersections. The analysis of near-term conditions included consideration of 14 development projects approved by the City of East Palo Alto but not yet constructed. Development of these projects would result in the addition of 269 residential units, 200,000 square feet of retail and office space, 44,000 square feet of industrial space, and a school on Myrtle Street that accommodates 250 students. Table 5 of the TIA lists these projects.

Existing Transportation Setting

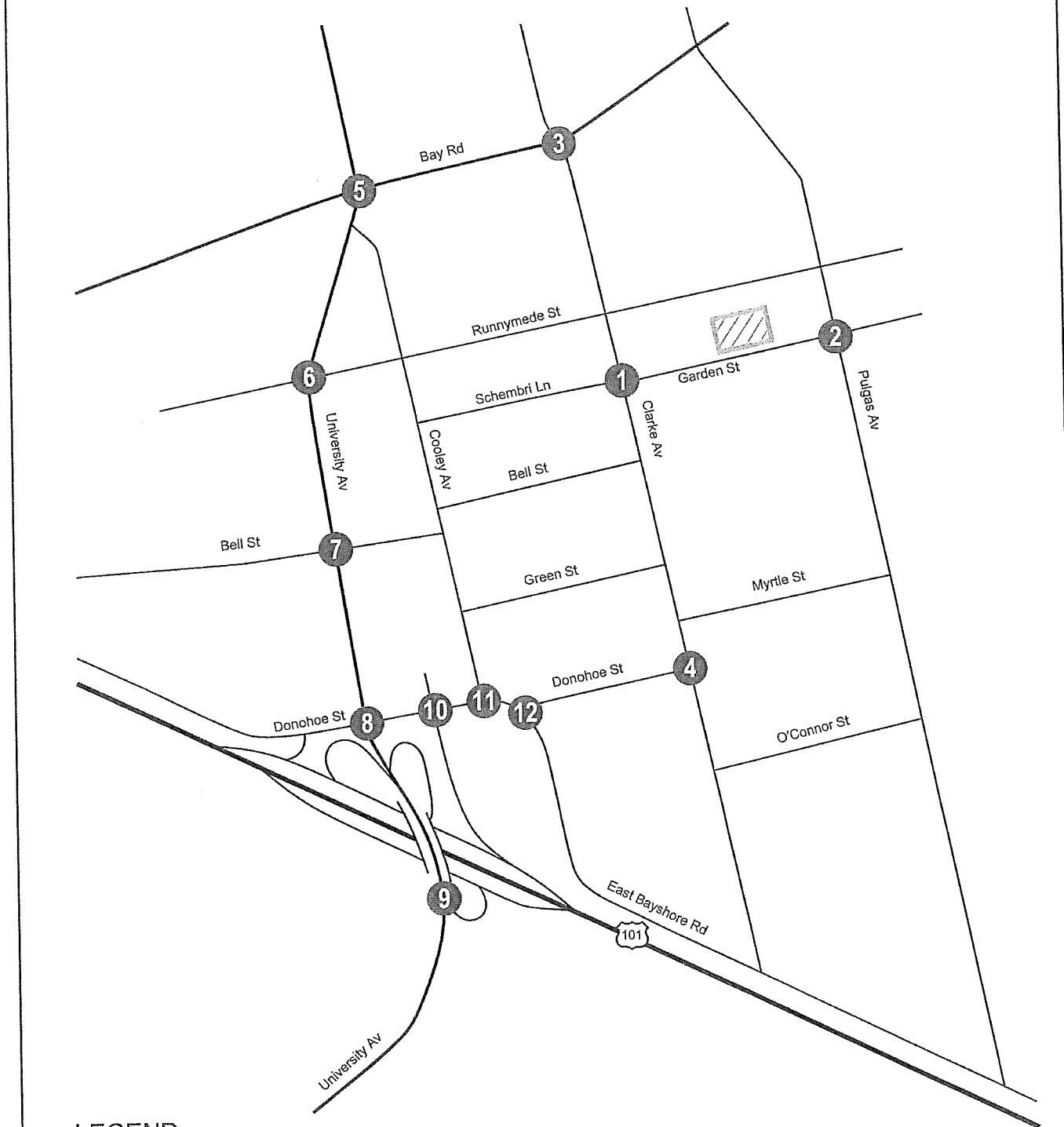
The City of East Palo Alto is closely tied to the San Francisco Bay Area's regional transportation system. U.S. Highway 101, also known as the Bayshore Freeway, extends through the southern portion of the city, while State Route 84 extends north of the city. State Route 84, which connects San Mateo County to the eastern portion of the Bay Area, crosses the Dumbarton Bridge, located northeast of the City. East Palo Alto is also located approximately two miles northeast of Caltrain stations in Menlo Park and Palo Alto.

Streets and Roadways

The following roadways currently provide access to the project site:

- *Garden Street* is an east-west roadway that extends from Clarke Avenue to east of Pulgas Avenue. West of Clarke Avenue, Garden Street changes designation to Schembri Lane terminating at a T-intersection with Cooley Avenue. Garden Street is a two-way undivided residential roadway. As the southern boundary, Garden Street provides direct access to the project site.

- *Clarke Avenue* is a north-south roadway located within the City of East Palo Alto and extending northward from Bayshore Road to Bay Road, where it changes designation to Illinois Street. Clarke Avenue is a two-lane undivided roadway. It provides access to the project site via its unsignalized intersection with Garden Street.



SOURCE: HEXAGON TRANSPORTATION CONSULTANTS, INC.

Figure 3-1
SITE LOCATION AND STUDY INTERSECTIONS

- *Pulgas Avenue* is a north-south roadway located within the City of East Palo Alto and extending northward from East Bayshore Road to north of Bay Road where it terminates. Pulgas Avenue is a two-lane undivided roadway. It provides access to the project site via its unsignalized intersection with Garden Street.

- *Cooley Avenue* is a north-south roadway located within the City of East Palo Alto and extending northward from Donohoe Street to University Avenue, just south of Bay Road. Cooley Avenue is a two-lane undivided roadway.

- *Bay Road* is a two- to four-lane, east-west road that extends from Saratoga Avenue to east of Pulgas Avenue. Bay Road is four lanes wide between University Avenue and Pulgas Avenue, and it is two lanes wide east of Pulgas Avenue and west of University Avenue.

The TIA collected existing traffic data in the project area and quantified existing traffic volumes. Based on existing intersection lane geometrics, the existing operating conditions at each of the study intersections and along each study roadway segment were quantified. The Circulation Element of the East Palo Alto General Plan has established LOS D as the minimally acceptable LOS for the City's roadway system. All of the existing intersections and roadway segments functioned at acceptable levels (see Tables 3-1 and 3-2 below).

The TIA also assessed the need for traffic signals at the study intersections that currently are unsignalized. This assessment is based on the Peak-Hour Volume Signal Warrant (Warrant #3 – Part B) described in the *California Manual on Uniform Traffic Control Devices*. No unsignalized intersections meet this signal warrant under existing traffic conditions, except for the Clarke Avenue/Donohoe Street intersection during the PM peak hour.

Public Transportation

The San Mateo County Transit District (SamTrans) provides existing transit service to the project vicinity. The closest bus stops are located on Pulgas Avenue at the intersection of Garden Street and on Clarke Avenue at the intersections of Bell Street. The project vicinity is served directly by two SamTrans bus routes. Route 280 provides service between the Stanford Shopping Center in Palo Alto and Purdue/Fordham in East Palo Alto with connections to the Palo Alto Caltrain Station and the Ravenswood Shopping Center via University Avenue, Donohoe Street, Clarke and Pulgas Avenues on 30-minute headway during commute hours. Route 296 provides service between East Palo Alto and the Redwood City Caltrain station via Middlefield Road, Willow Road, Bay Road, and Clarke Avenue on 30-minute headway during commute hours.

Other transit services in the City of East Palo Alto include the East Palo Alto (EPA) shuttle, the senior shuttle, the Dumbarton Express, and the Redi-Wheels (paratransit) program. The EPA shuttle connects East Palo Alto and the Palo Alto Caltrain Station during commute hours with three morning shuttles and four afternoon shuttles free of cost. The EPA shuttle route includes Pulgas Avenue, and passes by the intersection with Garden Street. The senior shuttle, also free of cost to users, travels through specific locations at specific times, but will pick up or drop off passengers anywhere along the route wherever it is safe to stop. The Dumbarton Express provides service between the Union City BART Station to Palo

Alto via University Avenue, with a stop in East Palo Alto at the University Avenue and Bay Road intersection. The Redi-Wheels program is a transportation service for persons with disabilities who cannot independently use regular SamTrans bus services.

Pedestrian and Bicycle Facilities

Pedestrian facilities in the project area consist primarily of sidewalks and crosswalks along the streets in the surrounding residential neighborhood and commercial areas. Sidewalks and crosswalks are found along most nearby roadways. However, sidewalks are missing along one or both sides on segments of Garden Street between Clarke and Pulgas Avenues.

Bike lanes in the vicinity of the project site are found along University Avenue, Bay Road, and O'Connor Street. Garden Street has no designated bikeways, nor do any streets in the vicinity.

According to surveys conducted for the TIA, approximately 35% of EPAPA students and 16% of Charter School 6-8 grade students currently, walk, ride a bicycle or take a bus to school every morning. Approximately 59% of EPAPA students and 37% of Charter School students do the same after school (Hexagon Transportation Consultants, 2010).

Airports

The Palo Alto Airport is the closest airport to the project site, approximately one mile to the southeast. It is a public use airport classified as a General Aviation airport, or an airport that provides all aviation services except for commercial air passenger service. The nearest airport with commercial passenger service is Mineta San Jose International Airport in San Jose, approximately 15 miles southeast of the project site. The project is a school that would bring students from two existing schools onto one site. It is not expected to have any impact on airport operations or traffic.

Environmental Impacts and Mitigation Measures

Traffic Impacts under Near-Term with Project Conditions

The TIA quantified the potential traffic operations effects of the proposed Charter School on the study intersections and roadway segments, under near-term plus project conditions. First, the TIA analyzed traffic volumes based on near-term condition without the proposed project. These volumes were estimated by adding to existing traffic volumes those of approved but not constructed projects, based on trip generation rates suggested by the Institute of Transportation Engineers (ITE) in their publication *Trip Generation (Eighth Edition)*. From these calculations, LOS and signal warrant conditions at the study intersections and roadway segments were evaluated. Table 3-2 below shows the results. There were no significant changes between existing conditions and near-term without project conditions.

For near-term with project conditions, traffic generated by the project was estimated. Typically, trip generation rates from the ITE would be used. However, since the ITE does not have data that would represent the proposed project, the TIA instead used surveys of students at EPAPA and the 6-8 students at East Palo Alto Charter School to determine trip

generation rates. Table 9 of the TIA summarizes the results. Based on rates developed from the surveys, and applying assumptions concerning student dismissal similar to those described in Chapter 2.0, Project Description, the project was predicted to generate a total of 173 net trips during the AM peak hour and 120 during the PM peak hour.

The TIA added the project traffic volumes to those under near-term conditions, with assumptions made concerning trip distribution and trip assignments for project traffic. From this, the TIA determined the LOS at the study intersections and roadway segments under near-term with project conditions. More detailed information concerning determination of LOS is available in the TIA in Appendix E.

Intersections

Table 3-2 illustrates the LOS at the study intersections under all three conditions. Based on the results of the TIA, the project would not cause a degradation of LOS at intersections to levels below LOS D – the minimally acceptable LOS established by East Palo Alto's General Plan. LOS D conditions would exist at the University Ave./Donohoe St. intersection; however, such conditions occur under existing conditions. The intersection at University Avenue and Bay Road would decline in LOS from its existing condition of C to D with the project. However, such a decline would occur even without the project. Therefore, project traffic would not have a significant impact on LOS at these intersections.

The TIA also analyzed the need for traffic signals at the study intersections that currently do not have them (#1-4 in Table 3-2) under near-term with project conditions. Based on the analysis, the intersection of Clarke Avenue and Donohoe Street would meet the warrant for a traffic signal during the PM peak hour. However, this intersection meets the warrant during the PM peak hour under existing conditions. Therefore, the project would have no significant impact on the requirement for traffic signals at this intersection. No other intersections meet the signal warrant under near-term with project conditions.

The City of East Palo Alto collects traffic impact fees from new development. The fees would be used for improvements to the city's roadway system, including traffic signals if necessary. Even though the traffic impacts of the project are not significant, the project would pay traffic impact fees.

Roadway Segments

Table 3-3 illustrates the LOS at the study roadway segments under all three conditions. The LOS for the roadway segments was based on the anticipated traffic volume on the segment and the segment's daily traffic capacity. Based on the results of the TIA, the project would not cause a degradation of LOS for the study roadway segments, except for the Garden Street segment. On this segment, the average daily traffic would double, from 1,058 to 2,006. This would lead to a decline in LOS from A to D. However, even with this significant decline, LOS on the Garden Street segment would still meet the minimum acceptable LOS established by East Palo Alto's General Plan. Therefore, project impacts on roadway segments are considered less than significant.

Table 3-2
LOS at Study Intersections

Study No.[1]	Intersection	Existing Control[2]	Peak Hour	LOS		
				Existing	Near-Term w/o Project	Near-Term w/ Project
1	Clarke Ave. and Garden St.	AWSC	AM	A	A	C
			PM	B	B	B
2	Pulgas Ave. and Garden St.	TWSC	AM	B	B	B
			PM	B	B	B
3	Clarke Ave. and Bay Rd.	AWSC	AM	B	B	B
			PM	B	B	B
4	Clarke Ave. and Donohoe St.	AWSC	AM	B	B	B
			PM	C	C	C
5	University Ave. and Bay Rd.	Signal	AM	C	C	C
			PM	C	D	D
6	University Ave. and Runnymede St.	Signal	AM	A	A	A
			PM	A	A	A
7	University Ave. and Bell St.	Signal	AM	A	A	A
			PM	A	A	A
8	University Ave. and Donohoe St.	Signal	AM	D	D	D
			PM	D	D	D
9	University Ave. and US 101 SB Ramps	Signal	AM	B	C	C
			PM	C	C	C
10	Capitol Ave. and Donohoe St.	Signal	AM	B	B	B
			PM	B	B	B
11	Cooley Ave. and Donohoe St.	Signal	AM	B	B	B
			PM	B	B	B
12	Bayshore Road and Donohoe St.	Signal	AM	B	B	B
			PM	B	B	B

Notes:
1. Study numbers correspond to numbers in Figure 3-1 of this document.
2. AWSC – four-way stop controlled intersection
   TWSC – two-way stop controlled intersection
   Signal – signalized intersection

Source: Hexagon Transportation Consultants, Inc., 2010

Table 3-3
LOS at Study Roadway Segments

Roadway Segment	Location	LOS		
		Existing	Near-Term w/o Project	Near-Term w/ Project
Pulgas Avenue	South of Garden Street	A	A	A
Garden Street	East of Clarke Avenue	A	A	D
Clarke Avenue	North of Garden Street	A	A	A
Runnymede Street	East of Cooley Avenue	A	A	A
Bell Street	East of Cooley Avenue	A	A	A

Source: Hexagon Transportation Consultants, Inc., 2010

As the Congestion Management Agency for San Mateo County, the City/County Association of Governments (C/CAG) is responsible for maintaining the performance and standards of the Congestion Management Program (CMP) roadway network. Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which a project is projected to add 1% or more to the segment capacity. U.S. 101 and University Avenue (SR 109) are the two CMP facilities in the vicinity of the project site. The TIA determined that the proposed project would not add traffic representing 1% or more to any freeway segments in the area. Therefore, freeway analysis for the CMP is not required.

Level of Significance: Less than significant

Mitigation Measures: None required

On-Site Circulation Impacts

Two parking areas are being proposed within the project site. The first parking area would be located along the western project site boundary, and it would consist of a total of 30 90-degree parking spaces located next to the western site boundary. The second parking area would be located next to the outbound driveway, on the southeast corner of the project site. Four rows (two drive aisles) of 90-degree parking would be located within this parking area, providing a total of 51 parking spaces. Both parking areas would be connected by a long, one-way, two-lane internal access roadway that would run in a clockwise direction adjacent to the site boundary.

Traffic picking up and dropping off students at the school during peak morning and evening hours could create a traffic queue. If the traffic queue is of sufficient length, it could spill over into Garden Street, thereby disrupting traffic flow on Garden Street and increasing potential safety hazards. However, the site plan for the project indicates that the school pick-up/drop-off area would be located at the back of the site, near the site's northern boundary. With the pick-up/drop-off area located at the back of the project site, traffic would not queue into Garden Street.

The TIA commented that the layout of the parking lot provides for easy vehicular maneuvering and circulation within the site as well as easy in and out access. No dead-end aisles are present; therefore, continuous circulation through the parking areas is possible. However, the long, straight design of the internal access roadway, although ideal for providing queue storage capacity, could potentially increase the tendency of drivers to drive at speeds that are unsafe through the parking lot. A mitigation measure described below would address this potential safety issue.

The recently revised environmental checklist in Appendix G of the CEQA Guidelines no longer has a question regarding adequacy of parking. However, the TIA noted that the proposed number of parking spaces for the project would be less than the number required by the City of East Palo Alto. The TIA identified inadequate parking as a potential concern, particularly for special events such as parent/teacher meetings. However, the Lead Agency stated that the proposed school would not have an event in the multipurpose building at the same time the school is in session, which would be a time that more parking would be needed. In addition, the school would not hold events in which students of all grades and their parents would attend. Based on these conditions, parking beyond that proposed in the project site would not be required.

Level of Significance: Potentially significant

Mitigation Measures:

16-1. Parking spaces and drive aisle dimensions shall adhere to Division of the State Architect design standards.

16-2. To manage vehicles speeds within the project site, suitable speed reduction measures (such as but not limited to speed limit signs and/or speed bumps) shall be installed along the access roadway.

Significance After Mitigation: Less than significant.

Implementation: The Lead Agency and its contractors will be responsible for the design and construction of the internal circulation in accordance with the mitigation measures.

Monitoring: The Lead Agency, in coordination with the Division of the State Architect, will verify that the applicable requirements have been incorporated into the project plans and specifications.

Public Transportation and Bicycling/Pedestrian Impacts

As previously noted, the project site is located near the EPA shuttle route on Pulgas Avenue and SamTrans bus routes on Pulgas Avenue and Clarke Avenue. Given the proximity of the project site to these public transportation routes, it is likely that some students would use public transportation to go to school. In fact, the project applicant has indicated that

public transportation use would be encouraged. The number of students that would use public transportation is not known. However, it is expected that these routes can accommodate the additional passengers the project would generate, without requiring additional buses or expanded bus facilities.

The project would place the EPAPA closer to residential areas. It is expected that this would encourage more walking and bicycling, as most students live in East Palo Alto, and many students likely live in the nearby residential areas. As previously noted, there are no bicycle routes and few sidewalks on Garden Street. There currently are no sidewalks along the project site street frontage. The project applicant has indicated that construction of sidewalks would occur along the frontage of the project site. Nevertheless, the following mitigation measure is proposed.

Level of Significance: Potentially significant

Mitigation Measures:

16-3. Curb, gutter and sidewalk improvements shall be constructed along the Garden Street frontage in accordance with City of East Palo Alto design standards. If the school expands its street frontage in the future, it shall construct curb, gutter and sidewalk along the additional frontage if none of these facilities exist, in accordance with City of East Palo Alto design standards.

Significance After Mitigation: Less than significant.

Implementation: The Lead Agency and its contractors will be responsible for the design and construction of the internal circulation in accordance with the applicable requirements and mitigation measures.

Monitoring: The Lead Agency, in coordination with the City of East Palo Alto Public Works Department, will verify that the applicable requirements have been incorporated into the project plans and specifications.

17. UTILITIES AND SERVICE SYSTEMS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	■
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	■	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐

d) Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	■
e) Has the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	■
f) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	■	☐
g) Comply with federal, state and local statutes and regulations related to solid waste?	☐	☐	☐	■

NARRATIVE EXPLANATION

Environmental Setting

Potable Water Services

The City of East Palo Alto's public water system is overseen by the City's Public Works Department, under contract with American Water Company. American Water Company manages the distribution, operation and maintenance of the municipal water system. The water system covers an area of 2.5 square miles, and provides water to domestic, commercial and industrial customers through 3,732 individual accounts as of 2005. Average daily demand for the water system in 2008 was 1.3 million gallons per day (mgd), with a peak usage of 3.1 mgd (City of East Palo Alto, 2008).

The water system draws all of its current water supply from the San Francisco Public Utilities Commission (SFPUC), which obtains its water from the Hetch Hetchy Reservoir in Yosemite National Park. The water is delivered to the City's water system through two turnouts off the Hetch Hetchy Aqueduct. From the turnouts, the water flows by gravity through the City's pressurized (average 80 pounds per square foot) distribution network consisting of cast iron pipes six inches in diameter or smaller. There is an existing four-inch water line in Garden Street.

Wastewater Collection and Treatment

Wastewater collection and treatment services in the project vicinity are provided by the East Palo Alto Sanitary District, whose service area covers all but the northwestern part of East Palo Alto. The service area includes more than 6,500 residential and more than 200 commercial, industrial and institutional connections. The Sanitary District has an extensive network of 30-35 miles of gravity sewer mains, ranging from six-inch to 24-inch diameter pipe. There is a six-inch sewer line in Garden Street. The Sanitary District has no pump stations.

Collected wastewater is sent to the Regional Water Quality Control Plant operated by the City of Palo Alto. The Water Quality Plant has a dry weather capacity of 39 mgd. The average dry weather flow to the plant was 25 mgd as of 2008. East Palo Alto is allotted 2.7 mgd plant capacity for average dry weather flow. As of 2008, average dry weather flow generated by East Palo Alto was 1.74 mgd (City of East Palo Alto, 2008).

Storm Drainage Services

Storm drainage services are provided by the City of East Palo Alto. There are two major storm drainage systems in the city – the Runnymede Storm Drain System and the O'Conner Storm Drain System. The City's system includes a pump station, 12 outfalls and discharge points, and a drainage channel at the end of Garden, Cypress and Beech Streets that runs to the pump station. There is an existing 21-inch storm drain line in Garden Street.

Solid Waste

East Palo Alto's current solid waste collection provider is Allied Waste/Republic Services. Starting January 1, 2011, collection services will be provided by Recology San Mateo County. Currently, solid waste collection from curbside bins occurs every Friday in the project vicinity. Recycled materials are collected once every two weeks.

Electricity, Gas and Other Utility Services

Pacific Gas and Electric Company (PG&E) currently provides natural gas and electric service to East Palo Alto. An overhead electrical distribution line runs along the south side of Garden Street adjacent to the project boundary. PG&E is a state-regulated utility that is obligated to extend electrical and gas service to existing and new development within its service area. Local service lines are located in the vicinity of the project site.

AT&T is the telephone service provider in the existing project vicinity. Comcast provides cable television services. Existing lines for both services are located in the project vicinity. AT&T and Comcast are regulated utilities that are obligated to provide service within the city.

Environmental Impacts and Mitigation Measures

Impacts on Potable Water Services

The proposed project would involve the redevelopment of the project site as a charter school. The project is not anticipated to require an additional source of water, as students and staff would largely be transferred from existing school facilities. Therefore, no substantial additional demand for water would be generated. It is possible that other activities may move into the vacated EPAPA site; however, the amount of water potentially required by such activities would be small, and would not require additional sources or new water lines.

Preliminary engineering work for the project indicates that the existing four-inch water line under Garden Street would be inadequate to accommodate potential water usage. The engineer for the project stated that the existing water line would need to be replaced by an

eight-inch line to meet fire flow requirements and replace an adjacent fire hydrant. The new line could be extended to existing water lines on either Clarke Avenue or Pulgas Avenue. Since the project would require the replacement of a water line by one with greater capacity, it would have a potentially significant effect on potable water services. In addition, installation of a water line could have potential environmental impacts on its own. However, since the proposed water line would be installed in the location of an existing line - beneath Garden Street in a fully developed urban area - the water line proposed in the mitigation measure is not expected to have significant environmental impacts.

Level of Significance: Potentially significant

Mitigation Measures:

17-1. The Lead Agency shall pay fair-share costs towards the installation of an eight-inch water line from the project site to the water line under either Clarke Avenue or Pulgas Avenue. Water line design and installation shall conform to City of Palo Alto Public Works Department standards. Construction work shall comply with all requirements to reduce environmental impacts, including water quality protection and erosion control measures. Installation shall be completed prior to the construction of structures on the project site.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for the design and construction of project improvements and/or payment of proportionate share costs.

Monitoring: The Lead Agency, in coordination with the East Palo Alto Public Works Department, will be responsible for review and approval of construction plans and for ensuring that proportionate share costs are collected or reimbursed.

Impacts on Wastewater Treatment and Collection Services

The project is not anticipated to require additional wastewater treatment capacity, as students and staff would be largely transferred from existing school facilities. Therefore, no overall additional wastewater would be generated by the project. It is possible that other activities may move into the vacated EPAPA site; however, the amount of wastewater potentially generated by such activities would not require new or expanded sewer lines.

Preliminary engineering work for the project indicates that the existing six-inch sewer line under Garden Street would likely be inadequate to accommodate anticipated wastewater generation. Based on an occupancy load of 500 for students and staff, the Lead Agency stated that restroom usage with standard fixtures would be approximately 2,665 gallons per day. No estimate was provided for water use in the specialty classrooms. The engineer for the project stated that the existing line would need to be upsized to an eight-inch line from the project site to Pulgas Avenue. Since the project would require the replacement of a

sewer line by one with greater capacity, it would have a potentially significant effect on wastewater services. As with the water line, installation of a sewer line could have potential environmental impacts on its own. However, since the proposed sewer line would be installed in the location of an existing line - beneath Garden Street in a fully developed urban area - the sewer line proposed in the mitigation measure is not expected to have significant environmental impacts.

Level of Significance: Potentially significant

Mitigation Measures:

17-2. The Lead Agency shall pay fair-share costs towards the installation of an eight-inch sewer line from the project site to Pulgas Avenue. Sewer line design and installation shall conform to City of Palo Alto Public Works Department standards. Construction work shall comply with all requirements to reduce environmental impacts, including water quality protection and erosion control measures. Installation shall be completed prior to the construction of structures on the project site.

Significance After Mitigation: Less than significant

Implementation: The Lead Agency and its contractors will be responsible for the design and construction of project improvements and/or payment of proportionate share costs.

Monitoring: The Lead Agency, in coordination with the East Palo Alto Public Works Department, will be responsible for review and approval of construction plans and for ensuring that proportionate share costs are collected or reimbursed.

Impacts on Storm Drainage Services

The project would likely generate additional stormwater runoff from existing conditions, as most of the project site would be covered with buildings and parking spaces, thereby increasing impervious surfaces. Preliminary engineering work for the project indicates that the existing 21-inch storm drainage line under Garden Street would likely be adequate to accommodate anticipated runoff. Therefore, no new or upsized drainage line would need to be installed, thereby avoiding potential environmental impacts of installation.

As discussed in Section 9, Hydrology and Water Quality, the project would be subject to the storm runoff water quality regulations of the federal Clean Water Act through the National Pollutant Discharge Elimination System (NPDES). Specifically, the project would be subject to NPDES Permit No. CAS612008, which contains provisions designed to reduce the impacts of new projects on stormwater runoff. These include measures to reduce the amount of runoff generated on a project site, which would reduce the amount of runoff the City's storm drainage system would be required to collect.

Level of Significance: Less than significant

Mitigation Measures: None required

Impacts On Solid Waste

Ongoing school operations would involve solid waste generation. The project is not anticipated to require additional landfill capacity, as students and staff would largely be transferred from existing school facilities. Therefore, no substantial additional solid waste would be generated. It is possible that other activities may move into the vacated EPAPA site; however, the amount of solid waste potentially generated by such activities would be small, and would not require additional landfill capacity.

Demolition and construction activities associated with the project would generate a substantial volume of waste material. The City of East Palo Alto requires that at least 60% of soil and concrete/asphalt and 25% of other waste from demolition activities is recycled. For construction activities, at least 55% of concrete/asphalt and 20% of other waste must be recycled (East Palo Alto Municipal Code – Chapter 15.56, Ord. #246). These requirements would reduce potential solid waste impacts to a less than significant level. In addition, the school would be required to participate in City recycling programs. As a result, the project would have a less than significant impact on solid waste.

Construction waste and waste from school operations that are not recycled would be disposed of at the Ox Mountain Sanitary Landfill near Half Moon Bay. The Ox Mountain Landfill currently has a permitted capacity of 37,900,000 cubic yards with a maximum permitted disposal of 3,598 tons per day. There is sufficient capacity available at the landfill to accommodate waste generated by the project.

Level of Significance: Less than significant

Mitigation Measures: None required

Impacts on Electricity, Gas and Other Utility Services

Gas and electrical infrastructure to the project site is already available, and capacity is available to serve the proposed project. During the redevelopment of this commercial site, the applicants must consult with PG&E or other service providers to ensure that infrastructure is available when needed and to prevent disturbance of potential existing buried utilities. This process prevents significant impacts, and no further mitigation would be required.

The proposed project would involve incidental new demands for phone and cable television services. These demands can be met by existing facilities in the area.

Level of Significance: Less than significant

Mitigation Measures: None required

18. MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	■	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	■

NARRATIVE EXPLANATION

(a) Impacts on Biological and Cultural Resources

Finding (a) is checked as "Less than Significant w/Mitigation Incorporated" on the basis of potential biological and cultural resource impacts described in Sections 4 and 5. These impacts would be reduced to a less than significant level with the mitigation measures identified in those sections.

(b) Cumulative Project Impacts

As described in this Initial Study, the potential environmental effects of the project would be reduced to less than significant levels with proposed mitigation measures. With mitigation, none of these impacts would be considered cumulatively considerable, either in combination with other impacts associated with the project, or when considered in conjunction with the environmental impacts of other urban development.

The TIA, described in Section 16, Transportation, evaluated the project under "near term" conditions. "Near term" conditions included consideration of 14 development projects approved by the City of East Palo Alto but not yet constructed. Evaluation of "near term with project" conditions would constitute an evaluation of cumulative traffic conditions. Section 16 evaluated this condition and concluded that no significant impacts would occur.

The proposed project would contribute to planned urban development in East Palo Alto, thereby contributing to the cumulative impacts of such development on a very small scale.

However, with mitigation, none of the project's impacts would be considered significant at the project level or cumulatively considerable. In addition, as mentioned in Section 10, the project is consistent with the site's existing General Plan designation and zoning. Therefore, development at the project site would be consistent with the development anticipated in the City of East Palo Alto General Plan.

(c) Adverse Effects on Human Health

Other than the environmental effects reviewed in the above narrative, specifically in Section 8, the proposed project would not involve any other potential adverse effects on human beings, either directly or indirectly.

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APPENDIX B: ARCHAEOLOGICAL AND HISTORICAL RESOURCE REPORTS

APPENDIX C: SOILS REPORT

APPENDIX D: ENVIRONMENTAL SITE ASSESSMENTS

APPENDIX E: TRAFFIC IMPACT ANALYSIS