

# CEQA 15332 EXEMPTION ANALYSIS

FOR THE

## SUTTER MEDICAL OFFICE BUILDING PROJECT

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*Prepared for:*

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## INTRODUCTION

The following pages provide an analysis of the proposed Tracy Sutter Medical Office Building Project (project) with respect to the project's environmental review requirements under the California Environmental Quality Act (CEQA).

As explained in the following pages, the proposed project is exempt from CEQA's environmental review requirements under the Class 32 Categorical Exemption provided by CEQA Guidelines section 15332 (the "Class 32 Exemption for In-Fill Development Projects").

## PROJECT OVERVIEW

**Project Proposal:** Demolish an existing three-story 25,000 square foot medical office building and residential buildings and construct a new two-story, 45,500 square foot medical office building and associated parking areas onsite and offsite.

**Project location:** Building and parking area at 445 W. Eaton Avenue (APN 233-083-27). Additional parking lot at 418, 424, 432, and 434 W. Eaton Avenue (APN 233-084-03, 233-084-05, 233-084-06, 233-084-12). Existing parking will remain at 426 W. Beverly Place (APN 233-076-05).

**Site size:** Building on 2.7 acres and additional parking lot on 1.2 acres.

**Access:** Eaton Avenue, Bessie Avenue, and Beverly Place.

**Zoning and General Plan Designation:** Zoned Medical Office and designated Office in the General Plan. The site is surrounded on two sides by the Medium Density Residential zone (with existing residences).

**Surrounding land uses:** Residential uses to the east and south; medical office and some residential uses to the west and north.

The general project location is shown on Figure 1. Zoning on the project site and the surrounding areas is shown on Figure 2. General Plan designations for the project site and the surrounding areas is shown on Figure 3. Surrounding land uses and adjacent roadways are shown on Figure 4.

## PUBLIC RESOURCES CODE SECTION 21084 AND CEQA GUIDELINES SECTION 15332 EXEMPTIONS

Section 21084 of the Public Resources Code requires the CEQA Guidelines to include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA.

In response to that mandate, the Secretary of Resources has found that several classes of projects, listed in Article 19 of the CEQA Guidelines, do not have a significant effect on the environment, and they are declared to be categorically exempt from the requirement for the preparation of environmental documents.

### *CEQA GUIDELINES SECTION 15332*

Section 15332, Class 32, consists of projects characterized as in-fill development meeting the conditions described in this section.

- a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
- b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- c) The project site has no value, as habitat for endangered, rare or threatened species.
- d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- e) The site can be adequately served by all required utilities and public services.

### **ANALYSIS**

The following analysis addresses the project's consistency with the requirements of Section 15332 of the CEQA Guidelines.

***a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.***

The project site is designated Office (O) by the Tracy General Plan. The proposed project is consistent with this land use designation. As described in the Tracy General Plan,

*"The purpose of this designation is to provide for the maintenance and expansion of the job and economic base of the City of Tracy and to provide more Tracy residents with the potential to work in the City. Office parcels may have a maximum FAR of 1.0. The Office designation provides sites for office and research and development uses that accommodate high-tech, medical/hospital, legal, insurance, government and similar users."*

The proposed medical office use is an allowed use in the Office land use designation. The 45,500 square foot medical office building would be constructed on a 2.7-acre site (117,612 square feet), and would have a floor-area ratio (FAR) of approximately 0.38.

The project site is zoned Medical Office. The proposed use is consistent with this zoning designation, and the project complies with all applicable zoning regulations including height, setbacks, parking, and other applicable development standards.

***b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.***

The project site is located within the City Limits, and consists of two parcels totaling 3.9 acres. As shown on Figure 4, the site is substantially surrounded by urban uses, including medical

office uses to the north and west, the Sutter Tracy Community Hospital to the west, and medium density residential uses to the south and east.

***c) The project site has no value, as habitat for endangered, rare or threatened species.***

The 2.7-acre site of the proposed medical office building is currently developed with medical office uses and associated parking areas. There is no natural habitat on the site that would support special status species, including endangered, rare, or threatened species. The 1.2-acre site of the proposed parking lot is currently developed with paved parking and access areas, various residential structures, and contains no natural habitat.

The project site is located within the jurisdiction of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan ("Plan" or "SJMSCP") and is located within the Central/Southwest Transition Zone of the SJMSCP. The San Joaquin Council of Governments (SJCOG) prepared the Plan pursuant to a Memorandum of Understanding adopted by SJCOG, San Joaquin County, the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), Caltrans, and the cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy in October 1994. On February 27, 2001, the Plan was unanimously adopted in its entirety by SJCOG. The City of Tracy adopted the Plan on November 6, 2001.

According to Chapter 1 of the SJMSCP, its key purpose is to "provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses, while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA); providing and maintaining multiple use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and, accommodating a growing population while minimizing costs to project proponents and society at large."

In addition to providing compensation for conversion of open space to non open space uses, which affect plant and animal species covered by the SJMSCP, the SJMSCP also provides some compensation to offset impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial open space uses. Specifically, the SJMSCP compensates for conversions of open space to urban development and the expansion of existing urban boundaries, among other activities, for public and private activities throughout the County and within Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy.

Participation in the SJMSCP is voluntary for both local jurisdictions and project applicants. Only agencies adopting the SJMSCP would be covered by the SJMSCP. Individual project applicants have two options if their project is located in a jurisdiction participating in the SJMSCP: mitigating under the SJMSCP or negotiating directly with the state and/or federal permitting agencies. If a project applicant opts for SJMSCP coverage in a jurisdiction that is participating under the SJMSCP, the following options are available, unless their activities are otherwise

exempted: pay the appropriate fee; dedicate, as conservation easements or fee title, habitat lands; purchase approved mitigation bank credits; or, propose an alternative mitigation plan.

Responsibilities of permittees covered by the SJMSCP include collection of fees, maintenance of implementing ordinances/resolutions, conditioning permits (if applicable), and coordinating with the Joint Powers Authority (JPA) for Annual Report accounting. Funds collected for the SJMSCP are to be used for the following: acquiring Preserve lands, enhancing Preserve lands, monitoring and management of Preserve lands in perpetuity, and the administration of the SJMSCP. Because the primary goal of SJMSCP is to preserve productive agricultural use that is compatible with SJMSCP's biological goals, most of the SJMSCP's Preserve lands would be acquired through the purchase of easements in which landowners retain ownership of the land and continue to farm the land. These functions are managed by SJCOG.

The project site is classified as Urban Habitat under the SJMSCP and is located in the Land Use Category A/No-Pay Zone. The Category A/No-Pay Zone indicates parcels where conversions of open space have occurred or where new conversions of open spaces would not require compensation because the subject parcel received a project approval prior to the effective date of the SJMSCP.

***d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.***

#### *TRAFFIC*

The project's potential traffic impacts were addressed in the Sutter Medical Office Building Traffic Impact Study (TJKM, January 19, 2015). This report is attached as Appendix A.

The purpose of the traffic study is to evaluate the potential traffic impacts resulting from the development of the proposed project and highlight any critical traffic issues that should be addressed in the on-going near term and longer term planning process. The following two scenarios were analyzed:

1. Existing Conditions – This scenario evaluates existing traffic and roadway conditions based on traffic counts and field surveys.
2. Existing plus Project Conditions – This scenario adds traffic generated by the proposed Sutter Medical Office building to the previous scenario.

The a.m., and p.m. peak hour periods were analyzed. The study focused on evaluating traffic conditions at the following nine intersections that may potentially be impacted by the proposed project:

- i. Eaton Avenue / Tracy Boulevard
- ii. Bessie Avenue/ Lowell Avenue
- iii. Bessie Avenue/ Beverly Place
- iv. Bessie Avenue/ Eaton Avenue
- v. Bessie Avenue/ 11th Street

- vi. Parker Avenue/11th Street
- vii. Parker Avenue/ Eaton Avenue
- viii. Parker Avenue/ Beverly Place
- ix. Parker Avenue/Lowell Avenue

### **Thresholds of Significance**

The following thresholds of significance are used in the traffic analysis:

- Where feasible, the minimum acceptable LOS for roadway and overall intersection operations is LOS D.
- Within 1/4 mile of any freeway, LOS E shall be allowed on roadways and at intersections to discourage inter-regional traffic from using City streets.
- In the Downtown and Bowtie area of Tracy, LOS E shall be allowed.
- At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS D standard.
- During construction of intersection improvements or funded but not yet constructed, the LOS may temporarily fall below the City's LOS D standard.

### **Summary and Conclusions**

TJKM has reached the following conclusions regarding the proposed project in the City of Tracy:

- Under Existing Conditions (Scenario 1), all study intersections except the intersection of Bessie Avenue and 11th Street operate at an acceptable level of service. The intersection of Bessie Avenue and 11th Street operates at LOS E. As stated earlier under thresholds of significance, "At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS D standard." A signal is warranted at the intersection but is not suggested. Since the majority of the side street volumes (southbound Bessie Avenue) are making a right-turn, the intersection is operating better than shown under LOS E conditions. A signal would not be helpful because it would add more delay to 11th Street.
- Since nearly 95 percent of the peak hour volumes on the side street at the intersection of Bessie Avenue and 11th Street are making a right turn, a signal is not justified.
- The proposed Project is expected to generate a net of 49 a.m. peak hour trips and 73 p.m. peak hour trips.
- Under Existing plus Sutter Medical Office Project Conditions (Scenario II), all study intersections except the intersection of Bessie Avenue and 11th Street operate at an acceptable level of service. The intersection of Bessie Avenue and 11th Street technically operates at LOS E but 95 percent of the southbound traffic makes right turns, meaning the intersection actually operates better than LOS E. A new signal is warranted at the

intersection but is not suggested, since most right turning traffic is not delayed. Under these circumstances, TJKM recommends leaving the intersection as is. New signals are not recommended because they would add delay to 11th Street where none exists now.

- The pedestrian crosswalk at the intersection of Eaton Avenue/Bessie Avenue was recently improved to include colored paved bulbout extension which makes the crosswalk more visible and shorter to cross. Pedestrians should use the existing crosswalk.

As demonstrated in the traffic study contained in Appendix A, implementation of the proposed project would not result in a decrease in level of service (LOS) for any study-area intersections and would not exceed any established thresholds of significance. As such, the project would not result in a significant traffic impact.

### *NOISE*

The project's potential noise impacts were addressed in the Sutter Medical Office Building Environmental Noise Assessment (J.C. Brennan and Associates, December 19, 2014). This report is attached as Appendix B. The following thresholds of significance were used in the analysis of potential noise impacts:

- Traffic noise levels exceeding 60 dB  $L_{dn}$  where existing noise levels are less than 60 dB  $L_{dn}$  at residential uses;
- Increased traffic noise levels of 5 dB where existing noise levels are less than 60 dB  $L_{dn}$  at residential uses;
- Increased traffic noise levels of 3 dB where existing noise levels exceed 60 dB  $L_{dn}$  at residential uses;
- Project-generated noise levels exceeding 60 dB  $L_{dn}$  at residential uses; and
- Project-generated noise levels exceeding 55 dBA  $L_{eq}$  at residential uses.

### **Existing Conditions**

The existing noise environment on the project site is defined primarily by traffic on the local roadway network.

### ***Existing Noise Receptors***

Some land uses are considered more sensitive to ambient noise levels than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved.



In the vicinity of the project site, sensitive land uses include existing single-family residential uses. These land uses could potentially experience noise impacts associated with project construction, daily operations, and/or increased traffic from project circulation.

**Existing Ambient Noise Levels**

To quantify the existing ambient noise environment in the project vicinity, four continuous 24-hour noise level measurements were conducted on project site, adjacent to the nearest sensitive receptors, on Monday November 3, 2014 and Tuesday November 4, 2014. The noise measurement locations are shown on Figure 3 of Appendix B. The noise level measurement survey results are provided in Table 1. See Appendix B for the complete 24-hour noise measurement results.

**Table 1: Summary of Existing Background Noise Measurement Data**

Site	Date	L <sub>dn</sub>	Average <sup>1</sup> Measured Hourly Noise Levels					
			Daytime (7am-7 pm)			Nighttime (10pm-7am)		
			Leq	L <sub>50</sub>	L <sub>max</sub>	Leq	L <sub>50</sub>	L <sub>max</sub>
<b>Continuous 24 hour noise level measurements</b>								
LT-A	11/3/14-11/4/14	55	49	46	64	48	45	60
LT-B	11/3/14-11/4/14	54	50	48	68	46	44	61
LT-C	11/3/14-11/4/14	55	50	48	65	48	46	60
<b>Short-Term Noise Level Measurements</b>								
Site	Date	Time	Duration	Leq	L <sub>max</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
ST-1	11/4/14	3:30 p.m.	10 min	50	63	53	48	47
ST-2	11/4/14	3:42 p.m.	10 min	54	71	57	52	49
ST-3	11/4/14	3:57 p.m.	10 min	61	71	65	59	49
ST-4	11/4/14	4:16 p.m.	10 min	55	71	58	50	45
ST-5	11/4/14	4:39 p.m.	10 min	70	77	72	69	62

1. Average values reported are the average of the hourly measured values over the daytime or nighttime period.

Source: j.c. brennan & associates, Inc., 2014.

### ***Existing Roadway Noise Levels***

To predict noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is used in conjunction with the Calveno reference noise emission curves, and accounts for vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project site. The FHWA Model was developed to predict hourly Leq values for free-flowing traffic conditions. To calculate Ldn, average daily traffic (ADT) volume data is adjusted based on the assumed day/night distribution of traffic on the project roadways.

Traffic volumes for existing conditions were obtained by TJKM Transportation Consultant (*Traffic Impact Study, Sutter Medical Office Building, November 12, 2014*) in the form of peak hour intersection movements. The peak hour traffic volumes were compiled into segment volumes and converted into daily traffic volumes using a factor of 10. Truck usage and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may receive shielding from noise barriers and/or buildings, or may be located at distances which vary from the assumed calculation distance. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project area roadway segments analyzed in this report.

Table 2 summarizes the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. Appendix B provides the complete inputs and results of the FHWA traffic modeling.

***Table 2: Existing Noise Levels and Distances to Contours***

Roadway	Segment	Exterior Noise Level, L <sub>dn</sub>	Distance to Contours (feet)		
			70 dB	65 dB	60 dB
W. Lowell	West of Bessie	54.9	5	11	23
W. Lowell	Bessie to Parker	53.6	4	9	19
W. Lowell	East of Parker	52.6	3	7	16
W. Beverly	West of Bessie	46.8	1	3	7
W. Beverly	Bessie to Parker	46.6	1	3	6
W. Beverly	East of Parker	48.1	2	4	8
W. Eaton	West of S. Tracy	52.2	3	7	15
W. Eaton	S. Tracy to Bessie	55.7	6	12	26

Roadway	Segment	Exterior Noise Level, L <sub>dn</sub>	Distance to Contours (feet)		
			70 dB	65 dB	60 dB
W. Eaton	Bessie to Parker	55.2	5	11	24
W. Eaton	East of Parker	56.5	6	14	29
W 11th Street	West of Bessie	65.4	25	53	114
W 11th Street	Bessie to Parker	64.9	23	49	106
W 11th Street	East of Parker	64.7	22	48	103
Tracy	North of W. Eaton	63.3	18	39	83
Tracy	South of W. Eaton	63.3	18	38	82
Bessie	N. of W. Lowell	54.4	5	10	21
Bessie	W. Lowell to W. Beverly	54.1	4	9	20
Bessie	W. Beverly to W. Eaton	54.3	5	10	21
Bessie	W. Eaton to W 11th	53.2	4	8	17
Parker	N. of W. Lowell	56.4	6	13	29
Parker	W. Lowell to W. Beverly	56.5	6	13	29
Parker	W. Beverly to W. Eaton	56.4	6	13	29
Parker	W. Eaton to W 11th	56.4	6	13	29

Source: FHWA-RD-77-108 with inputs from TJKM and j.c. brennan & associates, Inc. 2014.

## Project-Generated Noise

### *CONSTRUCTION NOISE*

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise-sensitive areas. Noise levels from construction equipment are shown in Table 3.

Annoyance due to construction activities primarily occurs when: 1) construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours); 2) the construction occurs in areas immediately adjoining noise-sensitive land uses; or 3) when

construction lasts over extended periods of time. Noise generated by construction would be the greatest during site grading activities and excavation for underground utilities.

Activities involved in construction would generate maximum noise levels, as indicated in Table 3, ranging from 76 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A primary project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would occur primarily during daytime hours.

**Table 3: Construction Equipment Noise**

Type of Equipment	Predicted Noise Levels, $L_{max}$ dB				Distances to Noise Contours (feet)	
	Noise Level at 50'	Noise Level at 100'	Noise Level at 200'	Noise Level at 400'	70 dB $L_{max}$ contour	65 dB $L_{max}$ contour
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

Construction activities associated with the proposed project will occur at distances ranging between approximately 15 feet (parking lot and sound wall construction) to 50 feet or more (building construction) from the nearest noise-sensitive receptors. Construction noise associated with parking lots would be similar to those associated with a public works projects, such as a roadway widening or paving project. Once sound walls are constructed, construction

noise levels would be reduced by approximately 5-10 dB depending on the type and location of construction activity.

As stated above, noise sensitive receptors near the construction site would, at times, experience elevated noise levels from construction activities; however, construction-related noise generally would occur during daytime hours only. General Plan Noise Element Policy 4 (Goal N-1.2) establishes the following construction requirements:

*All construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 a.m. to 7:00 p.m. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts:*

- *Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.*
- *Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.*
- *Utilize “quiet” air compressors and other stationary noise sources where technology exists.*

Implementation of these required measures (i.e., engine muffling, placement of construction equipment, and strategic stockpiling and staging of construction vehicles) and compliance with the City Municipal Code requirements, would serve to further reduce exposure to construction noise levels. Adherence to City General Plan policies listed above, and City Municipal Code Title 4.12, Article 9 (Noise Control Ordinance), would minimize any impacts from noise during construction. Therefore, no additional noise control measures would be required.

### ***Traffic Noise at Sensitive Receptors***

Traffic generated by the Proposed Project could generate traffic noise increases. However, these increases would not exceed the City’s substantial increase criteria. Additionally, the proposed project would not cause exceedances of the City of Tracy 60 dB Ldn exterior noise level standard for residential uses.

To predict noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is used in conjunction with the Calveno reference noise emission curves, and accounts for vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project site. The FHWA Model was developed to predict hourly Leq values for free-flowing traffic

conditions. To calculate Ldn, average daily traffic (ADT) volume data is adjusted based on the assumed day/night distribution of traffic on the project roadways.

Traffic volumes for existing conditions were obtained from TJKM (November 2014) in the form of peak hour intersection movements. The peak hour traffic volumes were compiled into segment volumes and converted into daily traffic volumes using a factor of 10. The project contribution to ADT traffic volumes was converted from peak hour to daily volumes using a multiplication factor of 10. Truck usage and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may receive shielding from noise barriers and/or buildings, or may be located at distances which vary from the assumed calculation distance. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project area roadway segments analyzed in this report.

Table 4 shows the predicted increases in traffic noise levels on the local roadway network for existing conditions which would result from the Proposed Project. Appendix B provides the complete inputs and results of the FHWA traffic noise prediction model.

*Table 4: Predicted Traffic Noise Levels and Project-Related Traffic Noise Level Increases (Existing Traffic Conditions)*

Roadway	Segment	Predicted L <sub>dn</sub> @ Closest Sensitive Receptors – 1 <sup>st</sup> Floor Outdoor Activity Areas				
		Existing	Existing + Project	Change	Criteria	Significant?
W. Lowell	West of Bessie	54.9	55.6	0.7	+5 dB	No
W. Lowell	Bessie to Parker	53.6	53.7	0.1	+5 dB	No
W. Lowell	East of Parker	52.6	52.8	0.2	+5 dB	No
W. Beverly	West of Bessie	46.8	47.1	0.3	+5 dB	No
W. Beverly	Bessie to Parker	46.6	47.1	0.5	+5 dB	No
W. Beverly	East of Parker	48.1	48.1	0.0	+5 dB	No
W. Eaton	West of S. Tracy	52.2	52.2	0.0	+5 dB	No
W. Eaton	S. Tracy to Bessie	55.7	56.4	0.7	+5 dB	No
W. Eaton	Bessie to Parker	55.2	55.7	0.5	+5 dB	No

Roadway	Segment	Predicted L <sub>dn</sub> @ Closest Sensitive Receptors – 1 <sup>st</sup> Floor Outdoor Activity Areas				
		Existing	Existing + Project	Change	Criteria	Significant?
W. Eaton	East of Parker	56.5	56.6	0.1	+5 dB	No
W 11th Street	West of Bessie	65.4	65.4	0.0	+3 dB	No
W 11th Street	Bessie to Parker	64.9	64.9	0.0	+3 dB	No
W 11th Street	East of Parker	64.7	64.8	0.1	+3 dB	No
Tracy	North of W. Eaton	63.3	63.3	0.0	+3 dB	No
Tracy	South of W. Eaton	63.3	63.4	0.1	+3 dB	No
Bessie	N. of W. Lowell	54.4	54.6	0.2	+5 dB	No
Bessie	W. Lowell to W. Beverly	54.1	55.0	0.9	+5 dB	No
Bessie	W. Beverly to W. Eaton	54.3	55.6	1.3	+5 dB	No
Bessie	W. Eaton to W 11th	53.2	53.6	0.4	+5 dB	No
Parker	N. of W. Lowell	56.4	56.4	0.0	+5 dB	No
Parker	W. Lowell to W. Beverly	56.5	56.6	0.1	+5 dB	No
Parker	W. Beverly to W. Eaton	56.4	56.5	0.1	+5 dB	No
Parker	W. Eaton to W 11th	56.4	56.7	0.3	+5 dB	No

Source: j.c. brennan & associates, Inc., Inc., FHWA RD-77-108 Traffic Noise Prediction Model and TJKM 2014.

The Table 4 data indicate that some of the noise sensitive receptors located along the project-area roadways are currently exposed to exterior traffic noise levels exceeding the City of Tracy 60 dB Ldn exterior noise level standard for residential uses. These receptors will continue to experience elevated exterior noise levels under existing conditions, with or without the proposed project.

The project will not cause increases in traffic noise levels exceeding: 1) 60 dB Ldn where existing noise levels are less than 60 dB Ldn, 2) the City's 3 dB threshold where existing noise levels exceed 60 dB Ldn or, 3) the City's 5 dB threshold where existing noise levels are less than 60 dB Ldn at residential uses. Therefore, no additional noise control measures would be required.

### ***Parking Lot Noise Generation***

As a means of determining the noise levels due to parking lot activities, j.c. brennan & associates, Inc., utilized noise level data collected for previous parking lot studies, and project trip generations supplied by TJKM (November 2014).

#### Primary Parking Lot – North of Eaton Avenue

The primary patient parking lot would be located on the west side of the proposed two-story medical office building. Additionally, an 8-foot tall masonry wall would be located at the east property line of the project site. Therefore, the residential uses to the east will be substantially shielded from parking lot activities occurring on the west side of the proposed medical office building.

Based upon the project traffic study, the total PM peak hour project trips would be 161. For the purpose of this analysis, j.c. brennan & associates, Inc. conservatively assumed that half of the total peak hour parking lot activity would occur at the north end of the parking area, and would not be shielded by the proposed two-story medical office building.

A typical SEL due to automobile arrivals/departures, including car doors slamming and people conversing is approximately 71 dB, at a distance of 50 feet. Based upon the project traffic study, half of the PM peak hour trip generation for the project is 81. Parking lot noise levels were determined using the following formula.

$$\text{Peak Hour } L_{eq} = \text{SEL} + 10\log(N) - 35.6, \text{ where:}$$

The SEL is the mean sound exposure level (SEL) for an automobile arrival or departure, N is the number of parking related operations in a peak hour (N is 81 for this portion of the project), 35.6 is 10 times the logarithm of the number of seconds in the peak hour.

The nearest residential uses would be located approximately 50 feet from the center of the parking region located on the north side of the proposed medical office building. Using the equation and operations data described above, the proposed parking lot would result in a peak hour noise level of approximately 47 dB  $L_{eq}$  at the nearest residential uses, accounting for the proposed 8-foot tall CMU wall. This would comply with the City of Tracy Noise Ordinance hourly standard of 55 dBA  $L_{eq}$  for residential uses. Appendix B shows the complete noise barrier calculation inputs and results.

Assuming that parking lot activity operated at this level continuously between the hours of 7:00 am to 9:00 pm, the day/night average ( $L_{dn}$ ) would be 45 dBA  $L_{dn}$ . This level would comply with the City's 60 dB  $L_{dn}$  noise level standard for residential uses. Therefore, no additional noise control measures would be required.



Staff Parking Lot – South of Eaton Avenue

The proposed staff parking lot would include 129 parking spaces. This analysis assumes that the parking lot could fill or empty in a one-hour period.

A typical SEL due to automobile arrivals/departures, including car doors slamming and people conversing is approximately 71 dB, at a distance of 50 feet. Based upon the parking lot filling or emptying in a one-hour period, the peak hour trip generation would be 129. Parking lot noise levels were determined using the following formula.

$$\text{Peak Hour } L_{eq} = \text{SEL} + 10\log(N) - 35.6, \text{ where:}$$

The SEL is the mean sound exposure level (SEL) for an automobile arrival or departure, N is the number of parking related operations in a peak hour (N is 129), 35.6 is 10 times the logarithm of the number of seconds in the peak hour.

The nearest residential uses would be located approximately 90 feet from the center of the staff parking lot. Using the equation and operations data described above, the proposed parking lot would result in a peak hour noise level of approximately 44 dB  $L_{eq}$  at the nearest residential uses, accounting for the proposed 8-foot tall CMU wall. This would comply with the City of Tracy Noise Ordinance hourly standard of 55 dBA  $L_{eq}$  for residential uses. Appendix B shows the complete noise barrier calculation inputs and results.

Assuming that parking lot activity operated at this level continuously between the hours of 7:00 am to 9:00 pm, the day/night average ( $L_{dn}$ ) would be 42 dBA  $L_{dn}$ . This level would comply with the City's 60 dB  $L_{dn}$  noise level standard for residential uses. Therefore, no additional noise control measures would be required.

***Mechanical Equipment Noise***

The proposed project will include rooftop mechanical equipment. This equipment will be shielded from view by a mechanical screen wall which will stand approximately 9-feet in height relative to the roof elevation. The primary rooftop equipment will include two 75-ton packaged rooftop units. The units will be located at the approximate rooftop locations shown on Figure 1 in Appendix B.

Based upon preliminary selections, these units will have a sound power rating of 102 dBA each, for a total of 105 dBA with both units operating. Based upon the project site plan, the two mechanical units would be located approximately 100 feet from the nearest residential property line to the east, at an elevation of approximately 30 feet relative to the adjacent residences. Based upon this distance and screening due to the proposed mechanical screen wall, HVAC noise levels are predicted to be 52 dBA  $L_{eq}$ . This would comply with the City of Tracy Noise Ordinance hourly standard of 55 dBA  $L_{eq}$  for residential uses. Appendix B shows the complete noise barrier calculation inputs and results.

Assuming that both HVAC units ran continuously between the hours of 6:00 am to 10:00 pm, the day/night average ( $L_{dn}$ ) would be 52 dBA  $L_{dn}$ . This level would comply with the City's 60 dB

$L_{dn}$  noise level standard for residential uses. Therefore, no additional noise control measures would be required.

## **Noise Conclusions**

The proposed project is predicted to generate noise levels that comply with the City of Tracy General Plan Noise Element and Noise Ordinance standards.

### *AIR QUALITY*

Air quality emissions would be generated during construction of the proposed project and during operation of the proposed project. Operational emissions would come primarily from vehicle emissions from vehicle trips generated by the proposed project. Construction-related air quality impacts and operational air quality impacts are addressed separately below.

### **Construction-Related Emissions**

The San Joaquin Valley Air Pollution Control District's (SJVAPCD) approach to analysis of construction impacts is to require implementation of effective and comprehensive control measures, rather than to require detailed quantification of emission concentrations for modeling of direct impacts. PM10 emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM10 emissions from construction activities. The SJVAPCD has determined that compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 of the *Guide for Assessing and Mitigating Air Quality Impacts* (as appropriate) would constitute sufficient mitigation to reduce PM10 impacts to a level considered less than significant.

Construction would result in numerous activities that would generate dust. The fine, silty soils in the project area and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Grading, leveling, earthmoving and excavation are the activities that generate the most particulate emissions. Impacts would be localized and variable. The initial phase of project construction would involve grading and leveling the project site and installation of supporting underground infrastructure, such as water, sewer, storm drain, and electrical lines.

Construction activities that could generate dust and vehicle emissions are primarily related to grading and other ground-preparation activities in order to prepare the project site for the construction of the residential subdivision.

Control measures are required and enforced by the SJVAPCD under Regulation VIII. The project would be subject to these measures.

### **Operational Emissions**

For the purposes of this operational air quality analysis, actions that violate Federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors while outdoors and secondary standards designed to

safeguard human welfare) are considered significant impacts. Additionally, actions that violate State standards developed by the California Air Resources Board (CARB) or criteria developed by the SJVAPCD, including thresholds for criteria pollutants, are considered significant impacts. Projects that would generate 10 tons per year of either ROG or NOx are considered to have a potentially significant air quality impact. The SJVAPCD has also established a threshold of 15 tons per year for PM10. The San Joaquin Valley Air Basin is classified as a nonattainment area for ozone. In order to achieve the Federal and State standards of ozone, it is necessary to regulate ROG and NOx, which contribute to the formation of ozone. This includes both direct and indirect emissions.

Emissions were estimated using the approach included in the CalEEMod (v.2011.1.1) computer program, combined with emissions factors developed by CARB and the SJVAPCD. The CalEEMod model is used to calculate construction and operational emissions associated with land development projects, and includes EPA, SJVAPCD, and CARB emissions factors embedded within it.

The project would be an indirect source of air pollutants, in that it would attract and cause an increase in vehicle trips in the region and would consume energy that resulted in air emissions at the point of generation. Table 6 shows the emissions that would result from the proposed project. The San Joaquin Valley Air Pollution Control District has established a threshold of significance for ozone precursors of 10 tons per year, and 15 tons per year has been assumed to represent a significant impact for PM10.

**Table 6: Total Project Generated Emissions at Full Buildout**

	EMISSIONS (TONS/YEAR)					
	ROG	NOX	CO	SO2	PM10	PM2.5
Area Source Emissions	0.2071	0.0000	4.3000e-004	0.0000	0.0000	0.0000
Energy Emissions	4.2000e-003	0.0382	0.0321	2.3000e-004	2.9000e-003	2.9000e-003
Mobile Source Emissions	0.9770	2.6912	9.5967	0.0147	0.9413	0.2761
<b>Total Operational Emissions</b>	<b>1.1883</b>	<b>2.7294</b>	<b>9.6292</b>	<b>0.0150</b>	<b>0.9442</b>	<b>0.2790</b>
SJVAPCD Threshold	10	10	--	--	15	--
Above SJCAPCD Threshold?	No	No	NA	NA	No	NA

*Emissions were calculated using the CalEEMod (v.2013.2.2) computer program. Assumes total buildout of the proposed project.*

*1: Includes CO2e emissions from water and waste sources in addition to the operational sources identified above.*

As shown in the table above, project generated emissions are well below the SJVAPCD thresholds for ROG, NOx and PM10.

### *WATER QUALITY*

The project site is already developed with impervious surfaces and is not in a natural hydrologic condition. Development of the project site has limited potential to increase local runoff production, and may introduce constituents into storm water that are typically associated with urban runoff. These constituents include heavy metals (such as lead, zinc, and copper) and petroleum hydrocarbons associated with parking lots. Best management practices (BMPs) will be applied to the proposed site development to limit the concentrations of these constituents in any site runoff that is discharged into downstream facilities to acceptable levels.

In order to ensure that stormwater runoff from the project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, the project is required to prepare a Stormwater Pollution Prevention Plan (SWPPP). As described below, the SWPPP would require the application of best management practices (BMPs) to effectively reduce pollutants from stormwater leaving the site during both the construction and operational phases of the project. The implementation of this requirement would reduce this impact to a **less than significant** level. Additionally, the project is subject to the requirements of Chapter 11.34 of the Tracy Municipal Code – Stormwater Management and Discharge Control. The purpose of this Chapter is to *“Protect and promote the health, safety and general welfare of the citizens of the City by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable.”*

This chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System (“NPDES”) Permit No. CAS000004, as such permit is amended and/or renewed.

New development projects in the City of Tracy are required to provide site-specific storm drainage solutions and improvements that are consistent with the overall storm drainage infrastructure approach presented in the 2012 City of Tracy Citywide Storm Drainage Master Plan. Prior to approval of the Final Map, the project applicant is required to submit a detailed storm drainage infrastructure plan to the City of Tracy Development Services Department for review and approval. The project’s storm drainage infrastructure plans must demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site within onsite retention/detention facilities to the City’s existing stormwater conveyance system, and demonstrate that the project would not result in on- or off-site flooding impacts. The project is also required to pay all applicable development impact fees, which would include funding for offsite Citywide storm drainage infrastructure improvements identified in the 2012 City of Tracy Citywide Storm Drainage Master Plan.

The development of an onsite storm drainage system, the payment of all applicable fees, and the implementation of the SWPPP requirements would ensure that no adverse impacts associated with water quality would occur.

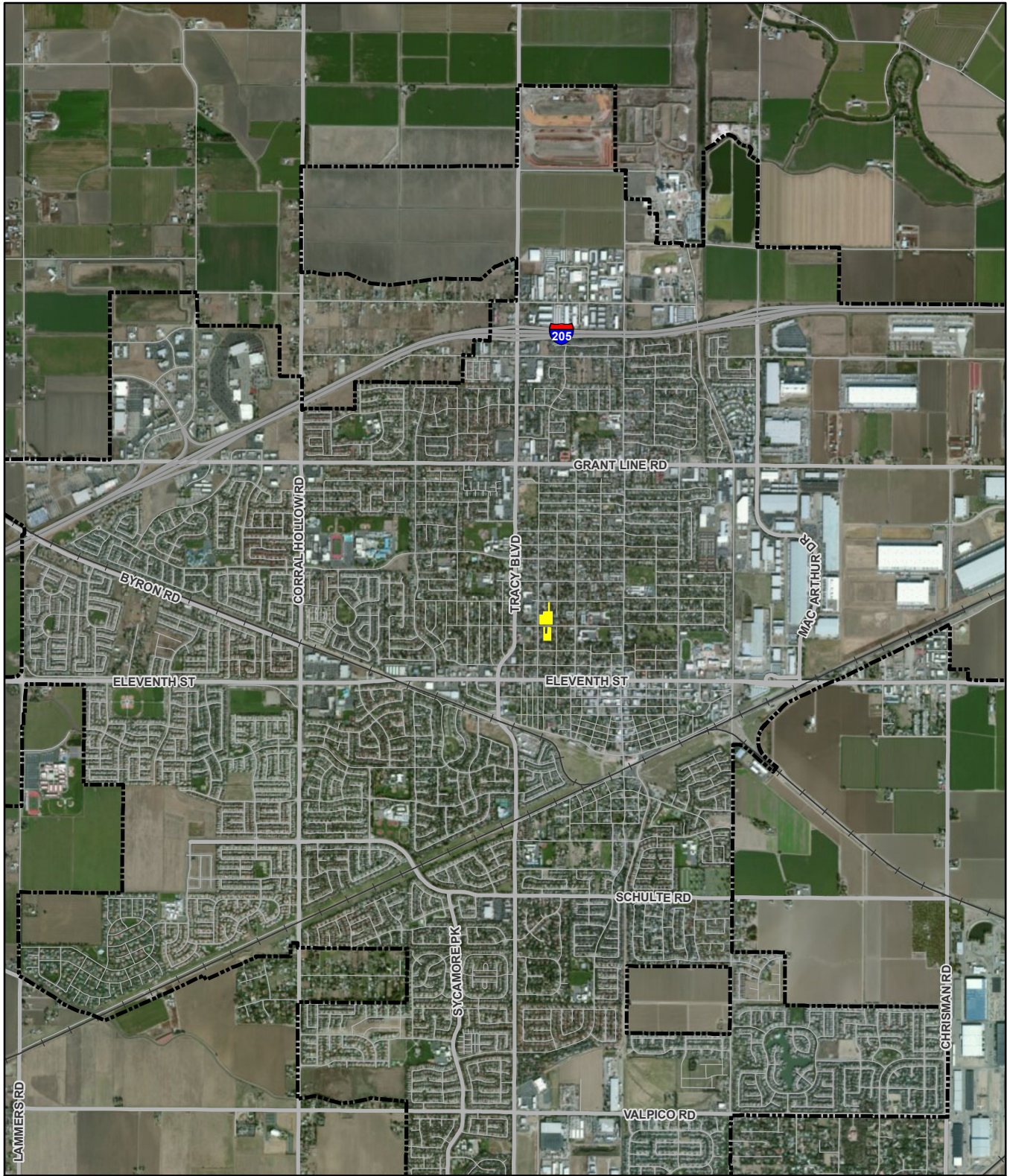
***e) The site can be adequately served by all required utilities and public services.***

The project site is currently served by utilities and public services, including water, sewer, storm drainage, electricity/natural gas, police, fire, and emergency medical services. New offsite infrastructure would not be extended in order to serve the project site. The project site is within the existing and established service areas for the police and fire departments. The site has been previously developed and occupied with similar uses for years. The proposed site plans and improvements would not result in any adverse impacts associated with utilities and public services.

## **CONCLUSIONS**

As demonstrated by the analysis provided above, the proposed project is exempt from CEQA review, consistent with the requirements established by Public Resources Code Section 21084 and CEQA Guidelines Section 15332 for the following reasons:

- a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
- b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- c) The project site has no value, as habitat for endangered, rare or threatened species.
- d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- e) The site can be adequately served by all required utilities and public services.

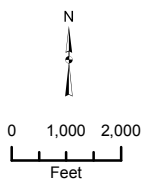


**SUTTER MEDICAL OFFICE PROJECT  
CITY OF TRACY**

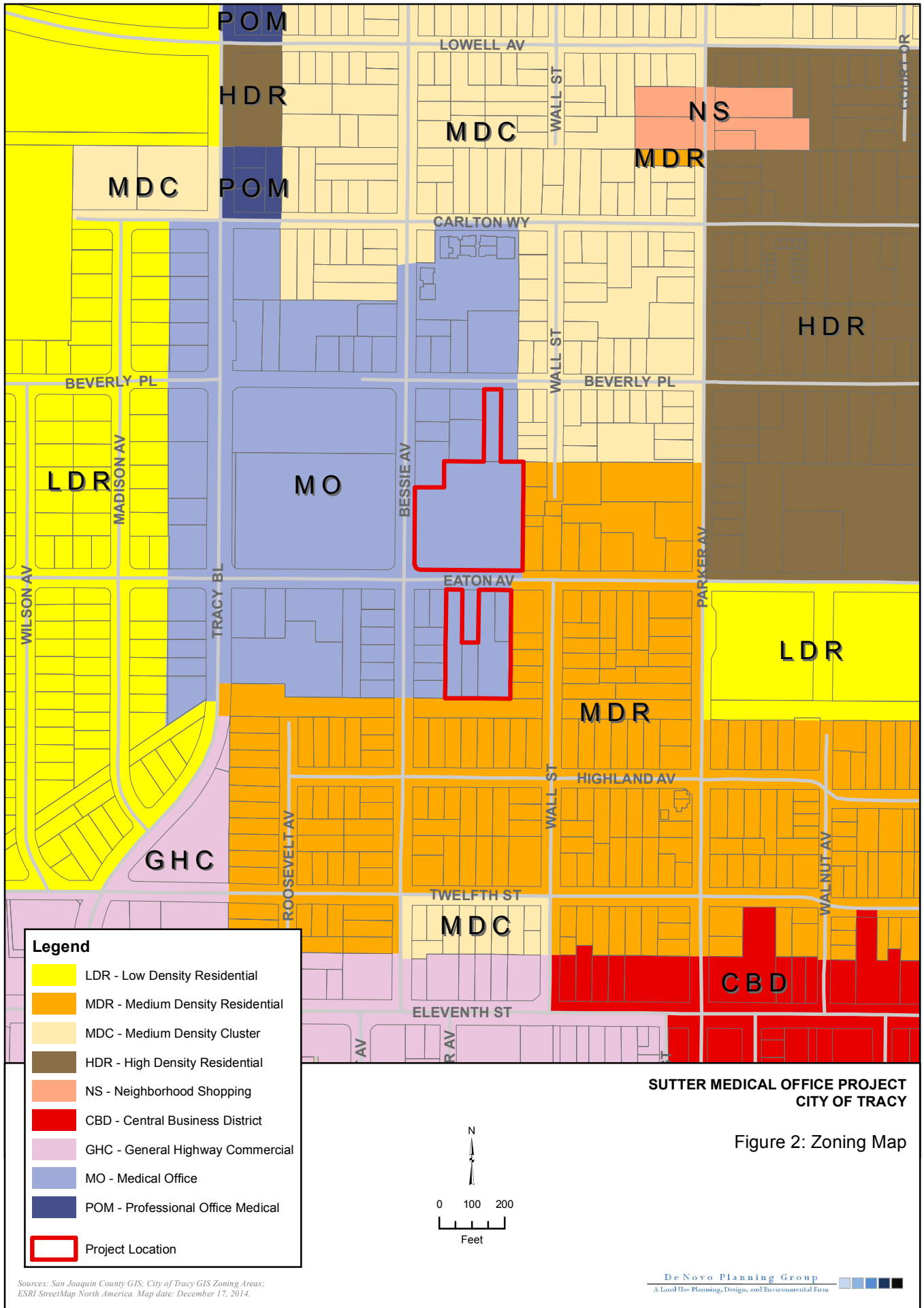
Figure 1: Project Location

**Legend**

- Project Location
- City of Tracy

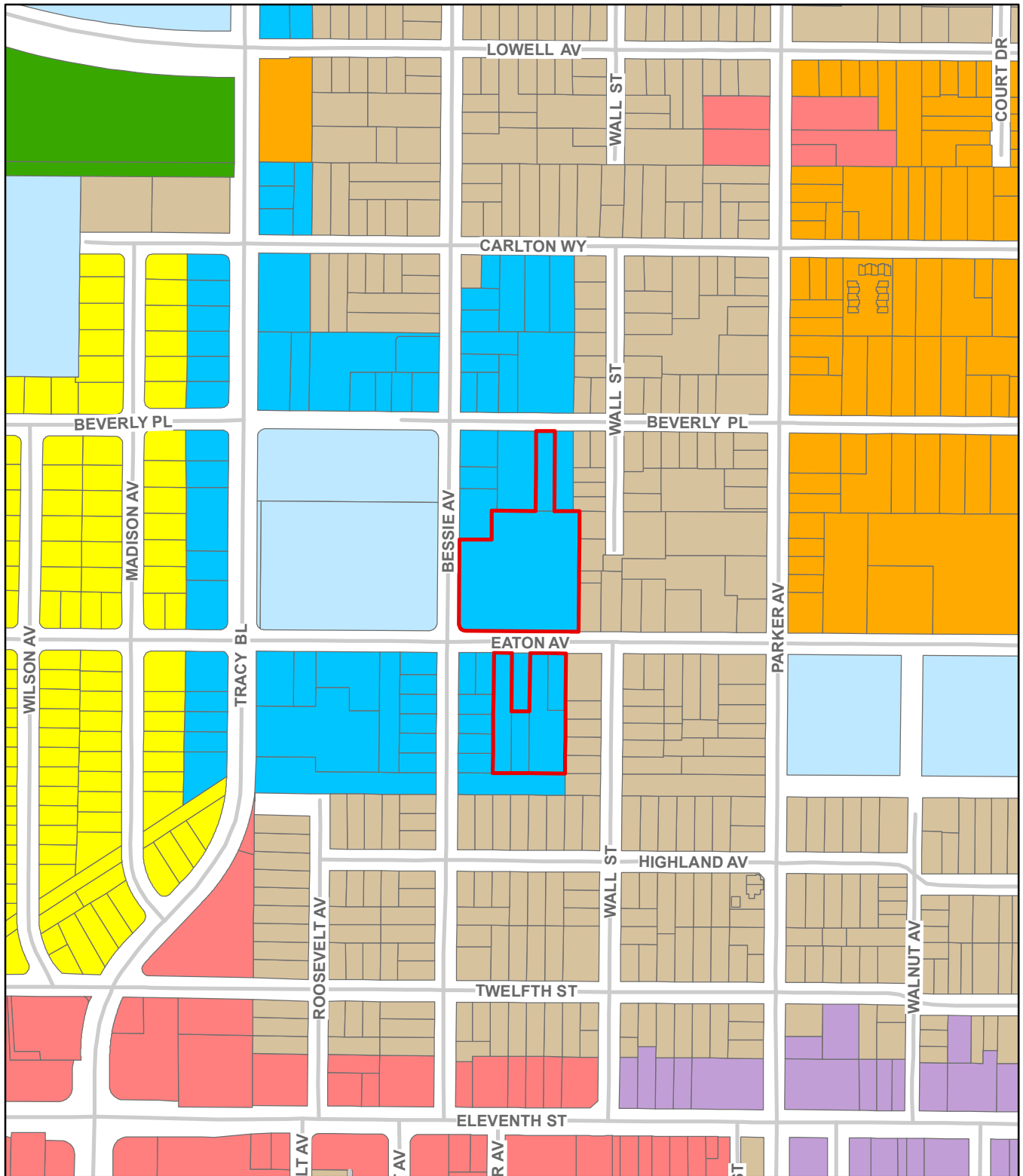


Sources: San Joaquin County GIS; ArcGIS Online World Imagery  
Map Service. Map date: December 17, 2014.












Sources: San Joaquin County GIS; City of Tracy GIS Zoning Areas; ESRI StreetMap North America. Map date: December 17, 2014.



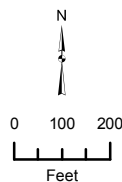


**Legend**

- |   |                  |   |                    |
|---|------------------|---|--------------------|
|  | Commercial       |  | Public Facilities  |
|  | Downtown         |  | Residential Low    |
|  | Office           |  | Residential Medium |
|  | Park             |  | Residential High   |
|  | Project Location |   |                    |

**SUTTER MEDICAL OFFICE PROJECT  
CITY OF TRACY**

Figure 3: General Plan Land Use Designations



Sources: San Joaquin County GIS; City of Tracy GIS, General Plan Land Use 2011; ArcGIS Online World Imagery Map Service. Map date: December 17, 2014.



**SUTTER MEDICAL OFFICE PROJECT  
CITY OF TRACY**

Figure 4: Surrounding Land Uses

**Legend**

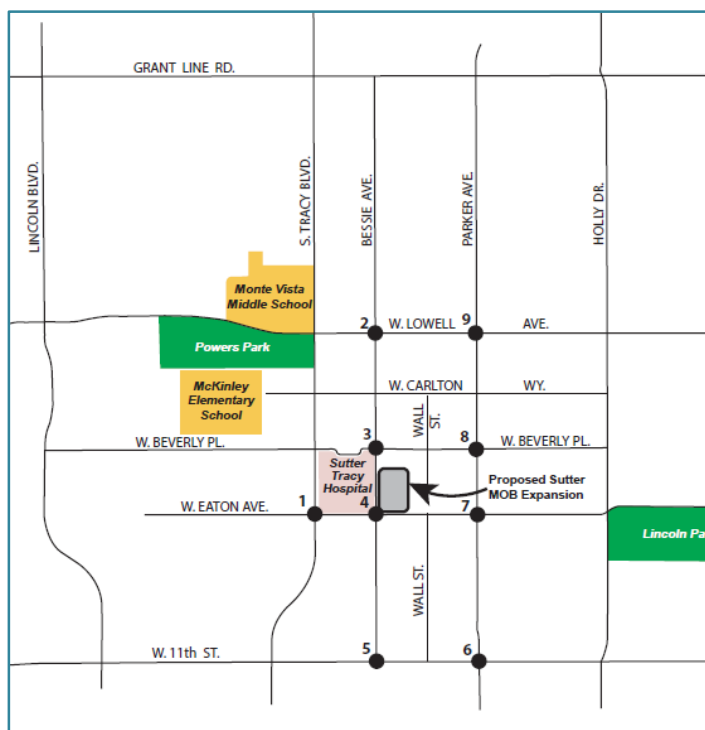
 Project Location

## Final Report

# Sutter Medical Office Building Traffic Impact Study

In the City of Tracy

January 19, 2015





Vision That Moves Your Community

## Final Report

# Sutter Medical Office Building Traffic Impact Study

In the City of Tracy

January 19, 2015



[www.tjkm.com](http://www.tjkm.com)

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## Introduction and Summary

### Introduction

The purpose of this report is to determine if the proposed project would result in a significant traffic impact. This report presents the results of TJKM's traffic impact study for the proposed Sutter Medical Office Building located at the northeast quadrant of the intersection of Bessie Avenue/ Eaton Avenue in Tracy. The proposed project consists of constructing a new 45,500 square foot (s.f.) medical office building that will replace an existing 25,000 s.f. medical office building onsite, resulting in a net increase of 20,500 square feet of medical office building. The project vicinity map is shown in Figure 1.

The purpose of this traffic study is to evaluate the potential traffic impacts resulting from the development of the proposed project and highlight any critical traffic issues that should be addressed in the ongoing near term and longer term planning process. The following two scenarios were analyzed:

1. *Existing Conditions* – This scenario evaluates existing traffic and roadway conditions based on traffic counts and field surveys.
2. *Existing plus Project Conditions* – This scenario adds traffic generated by the proposed Sutter Medical Office building net additional square footage to the previous scenario.

Typical weekday a.m. and p.m. peak hour periods were analyzed. The study focused on evaluating traffic conditions at the following nine intersections that may potentially be impacted by the proposed project:

1. Eaton Avenue / Tracy Boulevard
2. Bessie Avenue/ Lowell Avenue
3. Bessie Avenue/ Beverly Place
4. Bessie Avenue/ Eaton Avenue
5. Bessie Avenue/ 11<sup>th</sup> Street
6. Parker Avenue/11<sup>th</sup> Street
7. Parker Avenue/ Eaton Avenue
8. Parker Avenue/ Beverly Place
9. Parker Avenue/Lowell Avenue

The following thresholds of significance are used for this study:

- Where feasible, the minimum acceptable LOS for roadway and overall intersection operations is LOS D.
- Within ¼ mile of any freeway, LOS E shall be allowed on roadways and at intersections to discourage inter-regional traffic from using City streets.
- In the Downtown and Bowtie area of Tracy, LOS E shall be allowed.
- At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS D standard.
- During construction of intersection improvements or funded but not yet constructed, the LOS may temporarily fall below the City's LOS D standard.

### **Summary and Recommendations**

TJKM has reached the following conclusions regarding the proposed project in the City of Tracy:

- Under Existing Conditions (Scenario I), all study intersections except the intersection of Bessie Avenue and 11th Street operate at an acceptable level of service. The intersection of Bessie Avenue and 11th Street operates at LOS E. As stated earlier under thresholds of significance, “At intersections where construction of improvements is not feasible, the LOS may fall below the City’s LOS D standard.” A signal is warranted at the intersection but is not suggested. Since the majority of the side street volumes (southbound Bessie Avenue) are making a right-turn, the intersection is operating better than shown under LOS E conditions. A signal would not be helpful because it would add more delay to 11th Street.
- Since nearly 95 percent of the peak hour volumes on the side street at the intersection of Bessie Avenue and 11th Street are making a right turn, a signal is not justified.
- The proposed Project is expected to generate a net of 49 a.m. peak hour trips and 73 p.m. peak hour trips on a typical weekday.
- Under Existing plus Sutter Medical Office Project Conditions (Scenario II), all study intersections except the intersection of Bessie Avenue and 11th Street operate at an acceptable level of service. The intersection of Bessie Avenue and 11th Street technically operates at LOS E but 95 percent of the southbound traffic makes right turns, meaning the intersection actually operates better than LOS E. A new signal is warranted at the intersection but is not suggested, since most right turning traffic is not delayed. Under these circumstances, TJKM recommends leaving the intersection as is. New signals are not recommended because they would add delay to 11th Street where none exists now.
- The pedestrian crosswalk at the intersection of Eaton Avenue/Bessie Avenue was recently improved to include a colored and paved bulbout extension, which makes the crosswalk more visible and shorter to cross. Pedestrians should use the existing crosswalk.



## Existing Conditions (Scenario I)

### Project Location

The proposed Sutter Medical Office development is located near the intersection of Bessie Avenue/Eaton Avenue in Tracy. The project site and its vicinity are shown in Figure I.

### Existing Roadways

The nearest interchange to the project site is at Tracy Boulevard/I-205, which is approximately 1.5 miles north of the project site. There are several key roadways serving the project site, as shown in Figure I and discussed below:

*I-205* is located approximately 1.5 mile to the north of the project site and extends from I-580 to I-5 through the northern portion of the City of Tracy. Near the project site interchange access is located at Tracy Boulevard.

*Tracy Boulevard* is located to the west of the project site. It is generally a four-lane road near the project area. The posted speed limit on Tracy Boulevard is 35 miles per hour (mph).

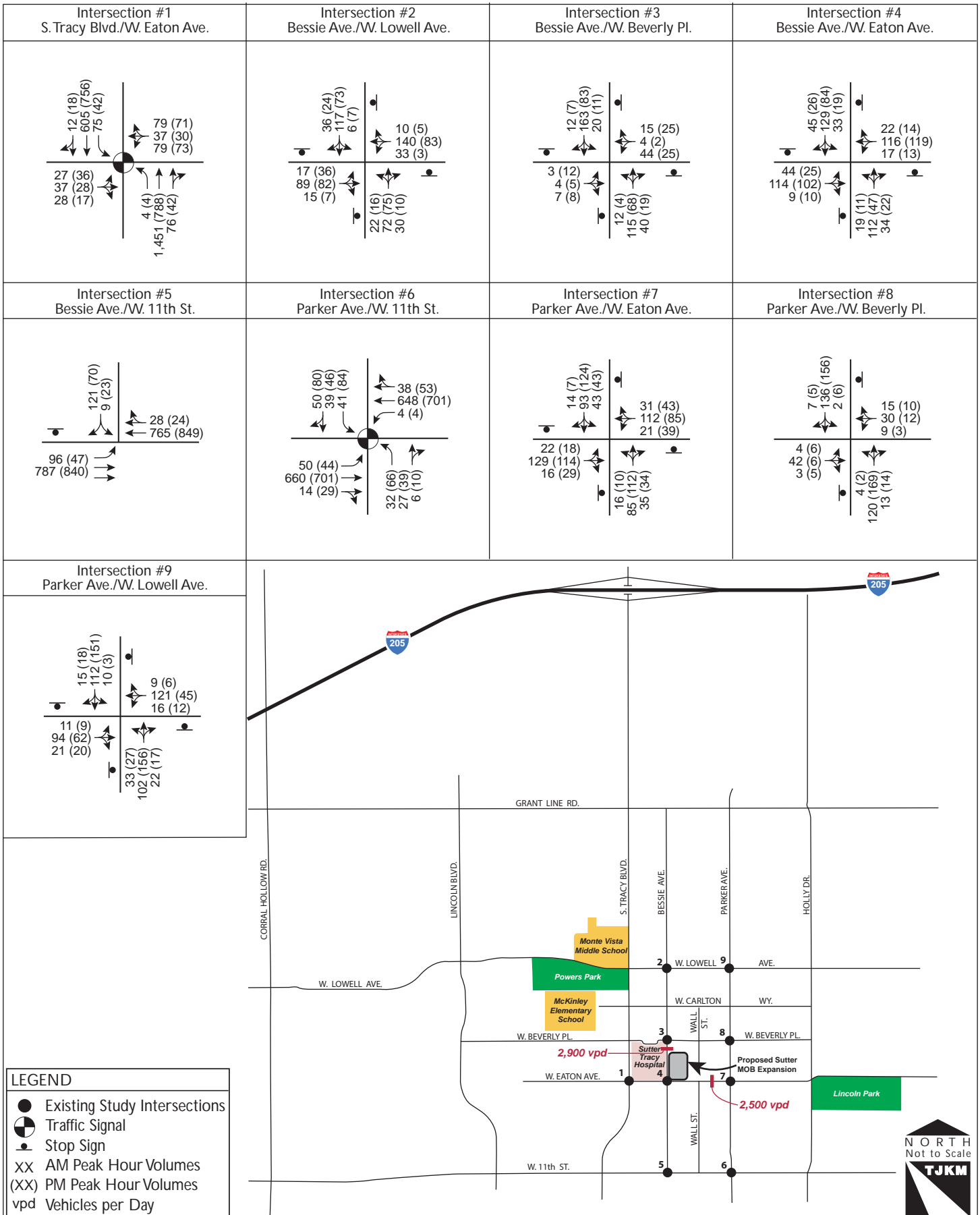
*Bessie Avenue* is a two-lane north-south roadway with on-street parking and forms the western boundary of the proposed project. The average daily traffic (ADT) is approximately 2,900 vehicles per day (vpd). The 85<sup>th</sup> percentile speed is approximately 28 mph. The posted speed limit is 25 mph.

When the speeds of all motorists at one location are ranked from slowest to fastest, the 85<sup>th</sup>-percentile speed separates the slower 85 percent from the fastest 15 percent, who typically pose the greatest safety hazard.

*Eaton Avenue* is a two-lane east-west roadway with on-street parking and forms the southern boundary of the proposed project. The ADT is approximately 2,500 vpd. The 85<sup>th</sup> percentile speed is approximately 28 mph. The posted speed limit is 25 mph.

*Lowell Avenue* is a two-lane east-west roadway with on-street parking and located three blocks to the north of the project site. A few speed humps are present.

The existing lane configurations for the nine study intersections are depicted in Figure I.



### **Level of Service Analysis Methodology**

Level of Service is a qualitative index of the performance of an element of the transportation system. Level of Service (LOS) is a rating scale running from A to F, with A indicating no congestion of any kind, and F indicating intolerable congestion and delays.

The *2000 Highway Capacity Manual (HCM)* is the standard reference published by the Transportation Research Board, and contains the specific criteria and methods to be used in assessing LOS. There are several software packages that have been developed to implement HCM. In this study the Synchro software was used to calculate the LOS at the study intersections. A detailed description of the methodology is provided in Appendix A.

The method of unsignalized intersection capacity analysis used in this study is from Chapter 10, "Unsignalized Intersections" of the *Highway Capacity Manual, Special report No. 209*, Transportation Research Board, updated October 2000. This method applies to two-way STOP sign or YIELD sign controlled intersections (or one-way STOP sign or YIELD sign controlled intersections at three-way intersections). At such intersections, drivers on the minor street are forced to use judgment when selecting gaps in the major flow through which to execute crossings or turning maneuvers. Thus, the capacity of the controlled legs of an intersection is based on three factors:

1. The distribution of gaps in the major street traffic stream.
2. Driver judgment in selecting gaps through which to execute their desired maneuvers.
3. Follow-up time required to move into the front-of-queue position.

The level of service criterion for Two-Way STOP controlled intersections is somewhat different from the criterion used for signalized intersections. The primary reason for this is the difference that drivers expect a signalized intersection to carry higher traffic volumes than unsignalized intersections. Additionally, several driver behavior conditions combine to make delays at signalized intersections less onerous than at unsignalized intersections.

The LOS is reported for the minor approach. Depending on the availability of gaps, the minor approach might be operating at LOS D, E, or F while the overall intersection operates at LOS C or better. A minor approach that operates at LOS D, E, or F does not automatically translate into a need for a traffic signal. A signal warrant would still need to be met. There are many instances where only a few vehicles are experiencing LOS D, E, or F on the minor approach while the whole intersection operates at an acceptable LOS. A signal is usually not warranted under such conditions.

The justification for the installation of a traffic signal at an intersection is based on the warrants stated in the California Manual on Uniform Traffic Control Devices (MUTCD) published by Caltrans and the Federal Highway Administration (FHWA). The decision to install a signal should not be based solely upon the warrants, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated.

### **Level of Service Standards**

The City of Tracy has established LOS D, where feasible, as the minimum acceptable LOS for roadway and overall intersection operations. However, there are certain locations where these standards do not apply. The following lists the exceptions to the LOS D standard:

- Within ¼ mile of any freeway, LOS E shall be allowed on roadways and at intersections to discourage inter-regional traffic from using City streets.
- In the Downtown and Bowtie area of Tracy, LOS E shall be allowed.
- At intersections where construction of improvements is not feasible, the LOS may fall below the City’s LOS D standard.
- During construction of intersection improvements or funded but not yet constructed, the LOS may temporarily fall below the City’s LOS D standard.

**Existing Traffic Volumes**

The existing turning movement counts at nine study intersections were collected during typical weekday a.m. (7:00-9:00) and p.m. (4:00-6:00) peak periods in September 2014. Figure 1 shows the existing peak hour turning movement volumes at the nine study intersections. The detailed count data is contained in Appendix B.

**Level of Service Analysis Results – Existing Conditions**

The results of the LOS analysis at the study intersections are shown in Table I. Detailed calculations are contained in Appendix B.

**Table I: Intersection Levels of Service – Existing Conditions (Scenario 1)**

Int.	Intersections	Existing Control	Existing			
			AM		PM	
			Delay	LOS	Delay	LOS
1	Tracy Blvd / Eaton Ave	Signalized	32.4	C	14.0	B
2	Bessie Ave / Lowell Ave	All Way Stop	11.2	B	8.2	A
3	Bessie Ave / Beverly Pl	All Way Stop	9.8	A	8.0	A
4	Bessie Ave / Eaton Ave	All Way Stop	13.7	B	9.8	A
5	Bessie Ave / 11th St	One Way Stop	35.6	E	43.7	E
6	Parker Ave / 11th St	Signalized	10.8	B	16.4	B
7	Parker Ave / Eaton Ave	All Way Stop	10.7	B	10.7	B
8	Parker Ave / Beverly Pl	Two Way Stop	12.3	B	11.8	B
9	Parker Ave / Lowell Ave	All Way Stop	10.6	B	9.4	A

Notes: LOS = Level of Service; X = Intersection level of service  
 X.X = Overall intersection delay in seconds per vehicle for signalized and all-way stop intersections, and delay for critical minor movement at unsignalized intersections

Currently, all study intersections except the intersection of Bessie Avenue and 11th Street operate at an acceptable level of service. The intersection of Bessie Avenue and 11th Street operates at LOS E.

**Signal Warrants**

The justification for the installation of a traffic signal at an intersection is based on the warrants stated in the California Manual on Uniform Traffic Control Devices (MUTCD) published by Caltrans and the Federal Highway Administration (FHWA). The decision to install a signal should not be based solely upon the warrants, since the installation of traffic signals may increase certain types of collisions. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop signs must be demonstrated.

A peak hour signal warrant was conducted for the intersection of Bessie Avenue and 11th Street. The signal warrant volume threshold was barely met for the a.m. peak hour. At one-way stop controlled intersections the worst minor street movement, generally the left-turn from side streets, governs LOS. Since nearly 95 percent of the peak hour volumes on the side street (southbound Bessie Avenue) are making a right turn, the left-turn movement at LOS E does not provide an accurate representation of the actual intersection LOS and a signal is not justified. In this instance, new traffic signals would actually add delay to the intersection by requiring 11<sup>th</sup>



**Intersection of Bessie Avenue/11<sup>th</sup> Street – Looking East**

Street traffic to stop some of the time. Thus, new signals would be counter-productive.

## Existing plus Project Conditions (Scenario 2)

In this scenario the projected traffic volumes generated by the proposed Sutter Medical Office Project is added to Existing Conditions.

### Project Description

The proposed project consists of the development of a new 45,500 square foot (s.f.) medical office building that will replace an existing 25,000 s.f. medical office building onsite, resulting in a net increase of 20,500 square feet of medical office building. The proposed project is shown in Figure 1, and the proposed site plan is shown in Figure 2.

### Trip Generation

Trip generation is defined as the number of “vehicle trips” produced by a particular land use or project. A trip is defined as a one-direction vehicle movement. The total number of trips generated by the project includes the inbound and outbound trips.

The specific details are contained in Appendix C. As shown in Table II, the proposed project is expected to generate a net of 49 a.m. peak hour trips and 73 p.m. peak hour trips on a typical weekday.

**Table II: Proposed Project Trip Generation**

Land Use Types	ITE Code	Size		A.M. Peak				P.M. Peak			
				Rate	In	Out	Total	Rate	In	Out	Total
<b>Sutter Medical Office Building (A)</b>	Medical Office Building (ITE 720)	45.5	KSF	2.39	86	23	109	3.57	45	117	162
<b>Existing Land Use (B)</b>	Medical Office Building (ITE 720)	25.0	KSF	2.39	47	13	60	3.57	25	64	89
<b>Net Total Trips (A-B)</b>		<b>20.5</b>	<b>KSF</b>		<b>39</b>	<b>10</b>	<b>49</b>		<b>20</b>	<b>53</b>	<b>73</b>

Note: ksf =1,000 square feet

### Trip Distribution and Assignment

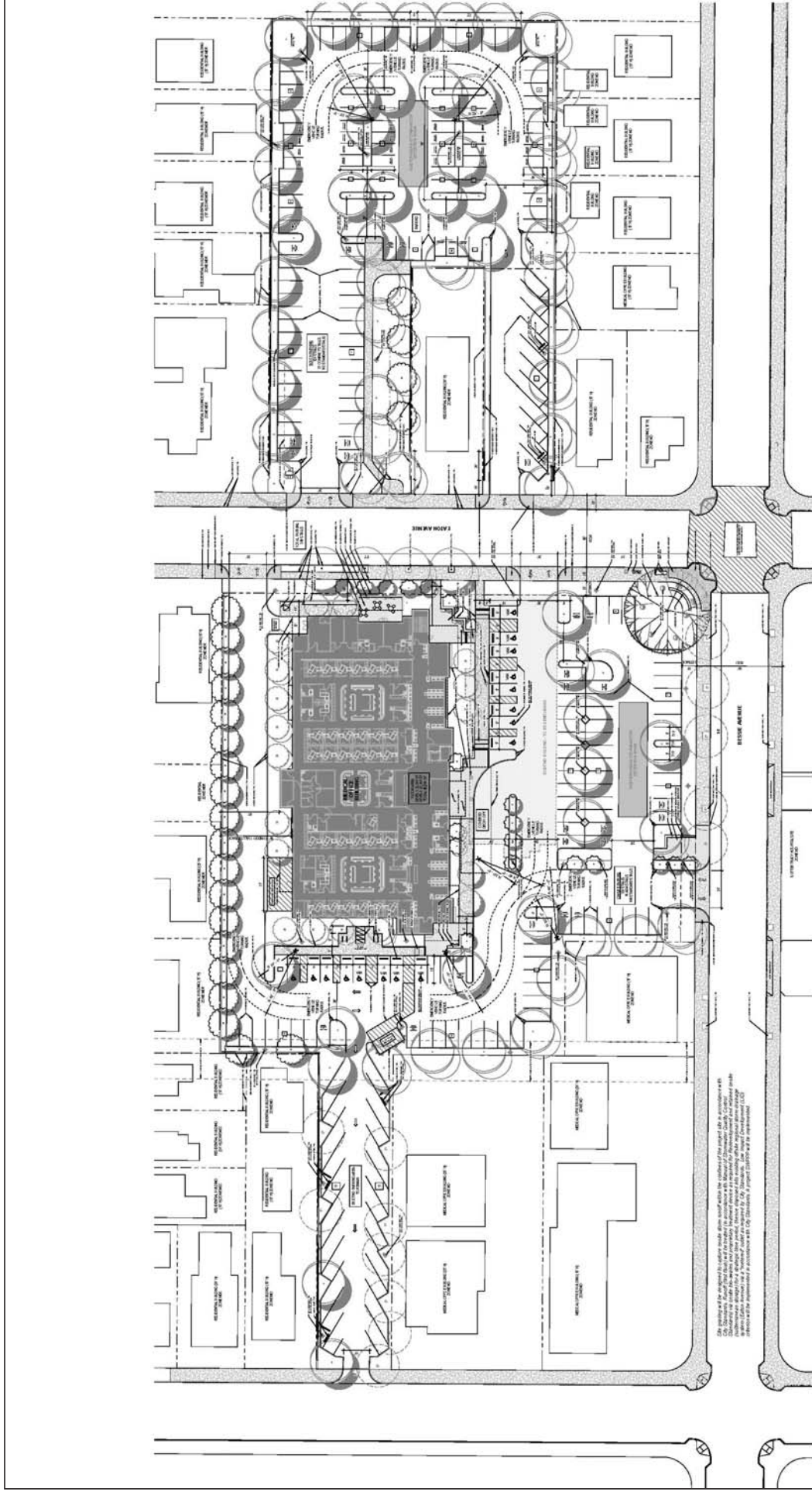
Trip distribution is the process of determining the proportion of vehicles that would travel between the project site and various destinations in the vicinity of the study area. Trip assignment is the process of determining the various paths vehicles would take from the project site to each destination.

The trip distribution assumptions for the proposed project are based on traffic characteristics on the adjacent streets, as well as consultation with city staff.<sup>1</sup> Figure 3 shows the trip distribution assumptions for the proposed project.

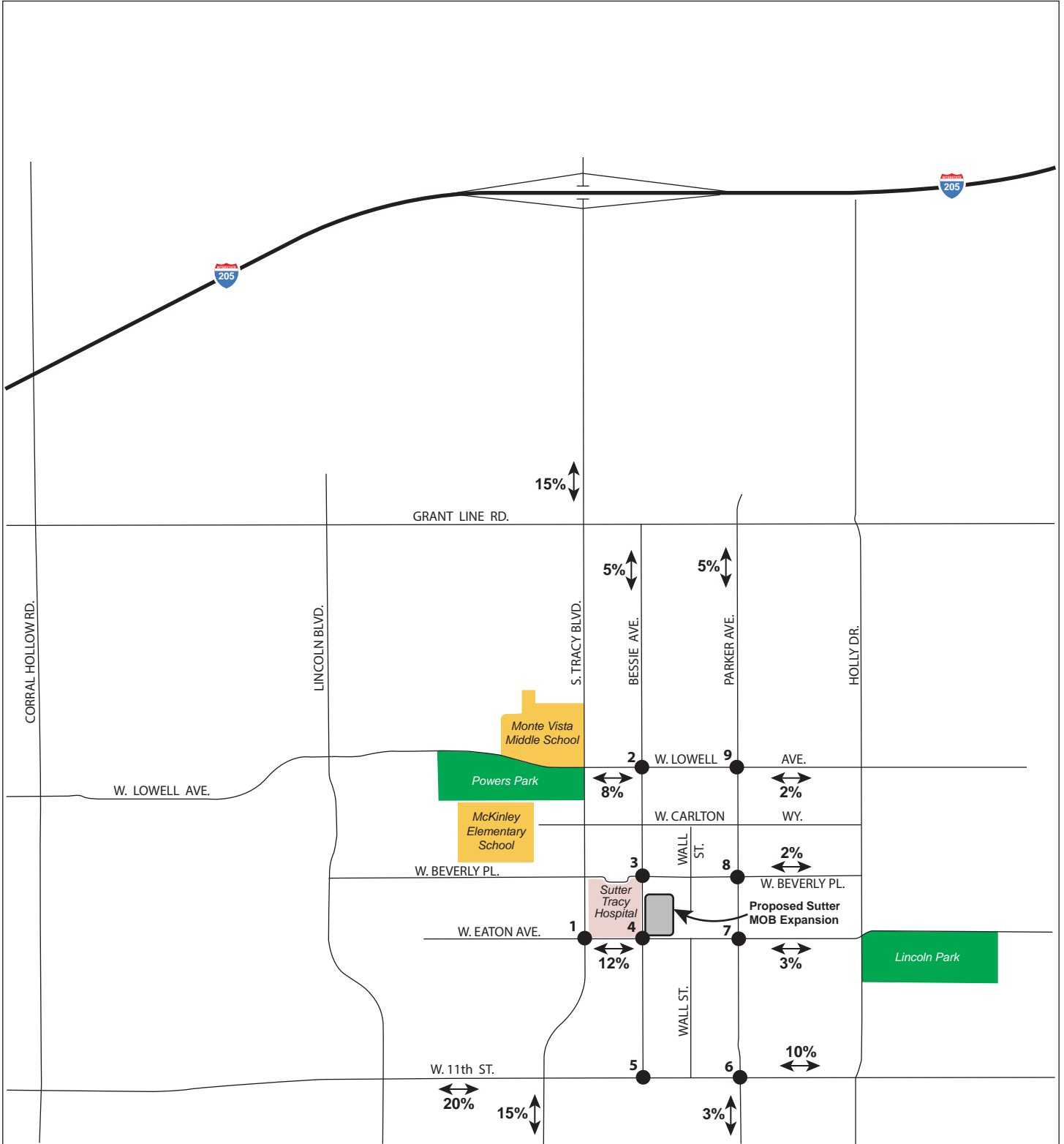
<sup>1</sup> Trip distribution information is based on discussions and approvals of Ripon Bhatia and Cris Mina, City of Tracy on October 9, 2014

City of Tracy - Traffic Impact Study for Sutter Medical Office Building Expansion Project  
Proposed Site Plan

Figure  
2



Source: LDA Partners



**LEGEND**  
 ● Study Intersections  
 XX% Trip Distribution





**Level of Service Analysis – Existing Plus Project Conditions**

The projected Existing plus Project peak hour turning movement volumes are shown in Figure 4. The results of the intersection LOS analysis under this scenario are shown in Table III. It is estimated that all intersections would operate at acceptable LOS except the intersection of Bessie Avenue and I Ith Street, which operates at an unacceptable LOS E. The detailed LOS calculations are contained in Appendix C. As noted in the existing conditions section, since nearly 95 percent of the peak hour volumes on the side street (southbound Bessie Avenue) are making a right turn, the left-turn movement at LOS E does not provide an accurate representation of the actual intersection LOS, and a signal is not justified. In this instance, new traffic signals would actually add delay to the intersection by requiring I Ith Street traffic to stop some of the time. Thus, new signals would be counter-productive.

**Table III: Intersection Levels of Service – Existing plus Project Condition (Scenario 2)**

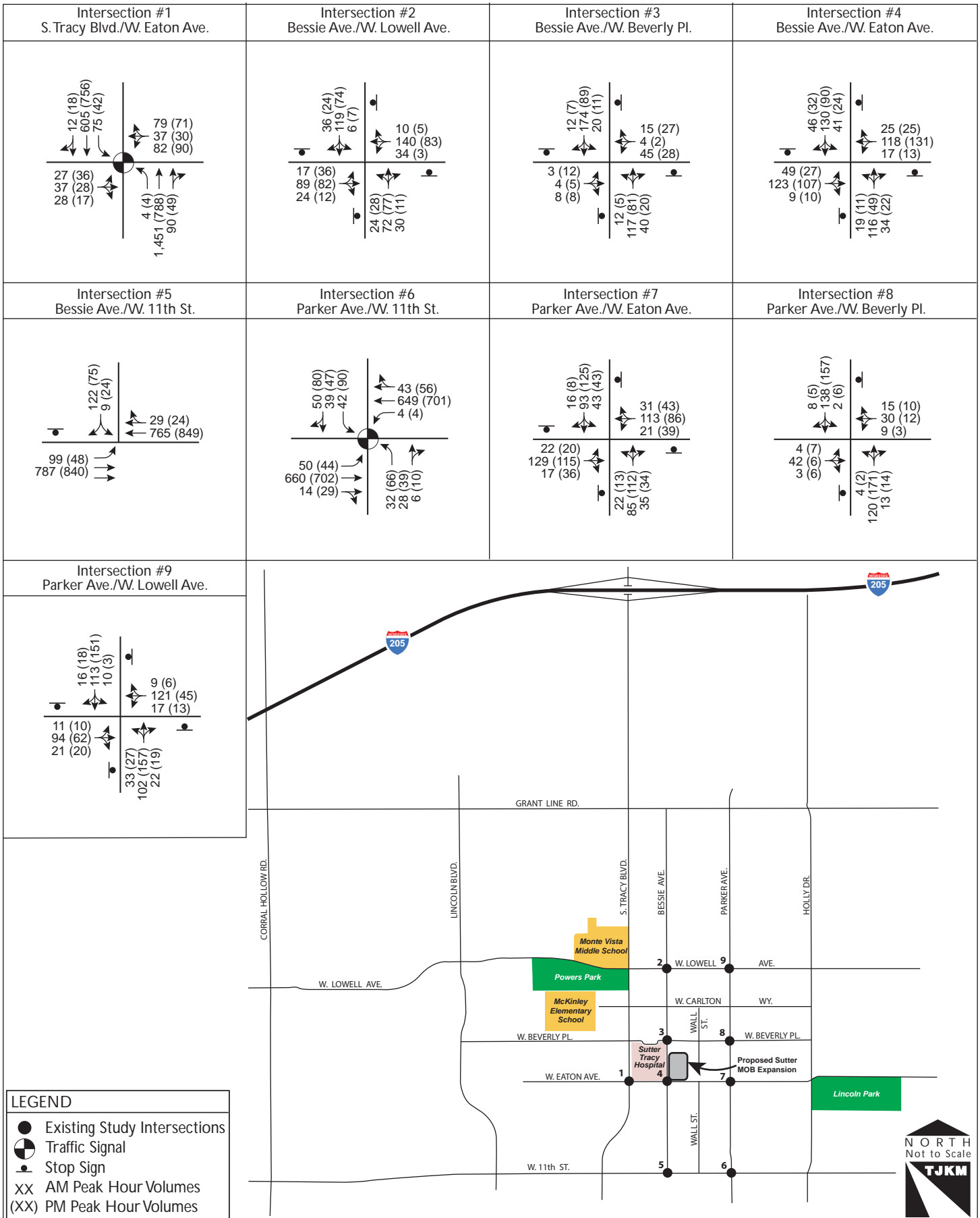
Int.	Intersections	Existing Control	Existing + Project			
			AM		PM	
			Delay	LOS	Delay	LOS
1	Tracy Blvd / Eaton Ave	Signalized	35.1	D	15.0	B
2	Bessie Ave / Lowell Ave	All Way Stop	11.4	B	8.3	A
3	Bessie Ave / Beverly Pl	All Way Stop	10.0	B	8.1	A
4	Bessie Ave / Eaton Ave	All Way Stop	14.7	B	10.4	B
5	Bessie Ave / I Ith St	One Way Stop	36.4	E	46.3	E
6	Parker Ave / I Ith St	Signalized	14.4	B	16.5	B
7	Parker Ave / Eaton Ave	All Way Stop	10.8	B	10.9	B
8	Parker Ave / Beverly Pl	Two Way Stop	12.3	B	11.8	B
9	Parker Ave / Lowell Ave	All Way Stop	10.7	B	9.5	A

Notes: LOS = Level of Service; X = Intersection level of service  
 X.X = Overall intersection delay in seconds per vehicle for signalized and all-way stop intersections, and delay for critical minor movement at unsignalized intersections

Table IV shows the change in delay between Existing Conditions and Existing plus Project Conditions at the study intersections. It is estimated that minimal additional delays are expected at all study intersections.

**Table IV: Comparison of Changes in Delay – between Existing Condition (Scenario 1) and Existing plus Proposed Project Condition (Scenario 2)**

<i>Int.</i>	<i>Intersections</i>	<i>Existing Control</i>	<i>Changes in Average Delay (seconds)</i>	
			<i>AM</i>	<i>PM</i>
1	Tracy Blvd / Eaton Ave	Signalized	2.7	1.0
2	Bessie Ave / Lowell Ave	All Way Stop	0.2	0.1
3	Bessie Ave / Beverly Pl	All Way Stop	0.2	0.1
4	Bessie Ave / Eaton Ave	All Way Stop	1.0	0.6
5	Bessie Ave / 11th St	One Way Stop	0.8	2.6
6	Parker Ave / 11th St	Signalized	3.6	0.1
7	Parker Ave / Eaton Ave	All Way Stop	0.1	0.2
8	Parker Ave / Beverly Pl	Two Way Stop	0.0	0.0
9	Parker Ave / Lowell Ave	All Way Stop	0.1	0.1



### **Proposed Circulation**

As shown on the proposed site plan (Figure 2), two driveways are proposed on Eaton Avenue and one driveway on Bessie Avenue. The driveway on Bessie Avenue is approximately 200 feet north of Eaton Avenue. The main driveway on Eaton Avenue is approximately 225 feet to the east of Bessie Avenue and the secondary driveway that serves ambulance vehicles is approximately 170 feet to the east of the primary driveway.

The project shows 249 parking stalls – 120 parking stalls at the medical office building site and 129 parking stalls on a separate site to the south of Eaton Avenue. The overall internal circulation seems to flow well. Internal two-way traffic flow is maintained through 29-foot wide two-lane roadways that circulate through the main site. A one-way outbound driveway is also shown from the site to Beverly Place to the north.

Landscaping plants at locations of all intersecting corners should be kept to lower than 3.5 feet. This will ensure sight visibilities are not obstructed.

## Conclusions

TJKM has reached the following conclusions regarding the proposed project in the City of Tracy:

- Under Existing Conditions (Scenario I), all study intersections except the intersection of Bessie Avenue and 11<sup>th</sup> Street operate at an acceptable level of service. The intersection of Bessie Avenue and 11<sup>th</sup> Street operates at LOS E. As stated earlier under thresholds of significance, “At intersections where construction of improvements is not feasible, the LOS may fall below the City’s LOS D standard.” A signal is warranted at the intersection but is not suggested. Since the majority of the side street volumes (southbound Bessie Avenue) are making a right-turn, the intersection is operating better than shown under LOS E conditions. A signal would not be helpful because it would add more delay to 11<sup>th</sup> Street.
- Since nearly 95 percent of the peak hour volumes on the side street at the intersection of Bessie Avenue and 11<sup>th</sup> Street are making a right turn, a signal is not justified.
- The proposed Project is expected to generate a net of 49 a.m. peak hour trips and 73 p.m. peak hour trips on a typical weekday.
- Under Existing plus Sutter Medical Office Project Conditions (Scenario II), all study intersections except the intersection of Bessie Avenue and 11<sup>th</sup> Street operate at an acceptable level of service. The intersection of Bessie Avenue and 11<sup>th</sup> Street technically operates at LOS E but 95 percent of the southbound traffic makes right turns, meaning the intersection actually operates better than LOS E. A new signal is warranted at the intersection but is not suggested, since most right turning traffic is not delayed. Under these circumstances, TJKM recommends leaving the intersection as is. New signals are not recommended because they would add delay to 11<sup>th</sup> Street where none exists now.

The pedestrian crosswalk at the intersection of Eaton Avenue/Bessie Avenue was recently improved to include a colored and paved bulbout extension, which makes the crosswalk more visible and shorter to cross. Pedestrians should use the existing crosswalk.

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## Study References

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City of Tracy

City of Tracy

City of Tracy

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## Appendix A – Level of Service Methodology

# APPENDIX A

## LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, Highway Capacity Manual 2000. Highway Capacity Manual 2000 represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-1

**Table A-1: Level of Service Description**

	<b>Uninterrupted Flow</b>	<b>Interrupted Flow</b>
Facility Type	Freeways Multi-lane Highways Two-lane Highways Urban Streets	Signalized Intersections Unsignalized Intersections Two-way Stop Control All-way Stop Control
<b>LOS</b>		
A	Free-flow	Very low delay.
B	Stable flow. Presence of other users noticeable.	Low delay.
C	Stable flow. Comfort and convenience starts to decline.	Acceptable delay.
D	High density stable flow.	Tolerable delay.
E	Unstable flow.	Limit of acceptable delay.
F	Forced or breakdown flow.	Unacceptable delay

**Source:** Highway Capacity Manual 2000

### Urban Streets

The term "urban streets" refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.

Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.

Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.



The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

**Table A-II: Functional and Design Categories for Urban Streets**

Criterion	Functional Category			
	Principal Arterial		Minor Arterial	
Mobility function	Very important		Important	
Access function	Very minor		Substantial	
Points connected	Freeways, important activity centers, major traffic generators		Principal arterials	
Predominant trips served	Relatively long trips between major points and through trips entering, leaving, and passing through city		Trips of moderate length within relatively small geographical areas	
Criterion	Design Category			
	High-Speed	Suburban	Intermediate	Urban
Driveway access density	Very low density	Low density	Moderate density	High density
Arterial type	Multilane divided; undivided or two-lane with shoulders	Multilane divided: undivided or two-lane with shoulders	Multilane divided or undivided; one way, two lane	Undivided one way; two way, two or more lanes
Parking	No	No	Some	Usually
Separate left-turn lanes	Yes	Yes	Usually	Some
Signals per mile	0.5 to 2	1 to 5	4 to 10	6 to 12
Speed limits	45 to 55 mph	40 to 45 mph	30 to 40 mph	25 to 35 mph
Pedestrian activity	Very little	Little	Some	Usually
Roadside development	Low density	Low to medium density	Medium to moderate density	High density

**Source:** Highway Capacity Manual 2000

**Table A-III: Urban Street Class based on Function and Design Categories**

Design Category	Functional Category	
	Principal Arterial	Minor Arterial
High-Speed	I	Not applicable
Suburban	II	II
Intermediate	II	III or IV
Urban	III or IV	IV

Source: Highway Capacity Manual 2000

**Table A-IV: Urban Street Levels of Service by Class**

Urban Street Class	I	II	III	IV
Range of Free Flow Speeds (mph)	45 to 55	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	50	40	33	30
Level of Service	Average Travel Speed (mph)			
A	>42	>35	>30	>25
B	>34	>28	>24	>19
C	>27	>22	>18	>13
D	>21	>17	>14	>9
E	>16	>13	>10	>7
F	≤16	≤13	≤10	≤7

Source: Highway Capacity Manual 2000

### Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

### Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A description of levels of service for signalized intersections can be found in Table A-V

**Table A-V: Description of Level of Service for Signalized Intersections**

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

**Source:** Highway Capacity Manual 2000

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

### Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

### Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required

to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

**Table A-VI: Description of Level of Service for Two-Way Stop Controlled Intersections**

<b>Level of Service</b>	<b>Description</b>
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

**Source:** Highway Capacity Manual 2000

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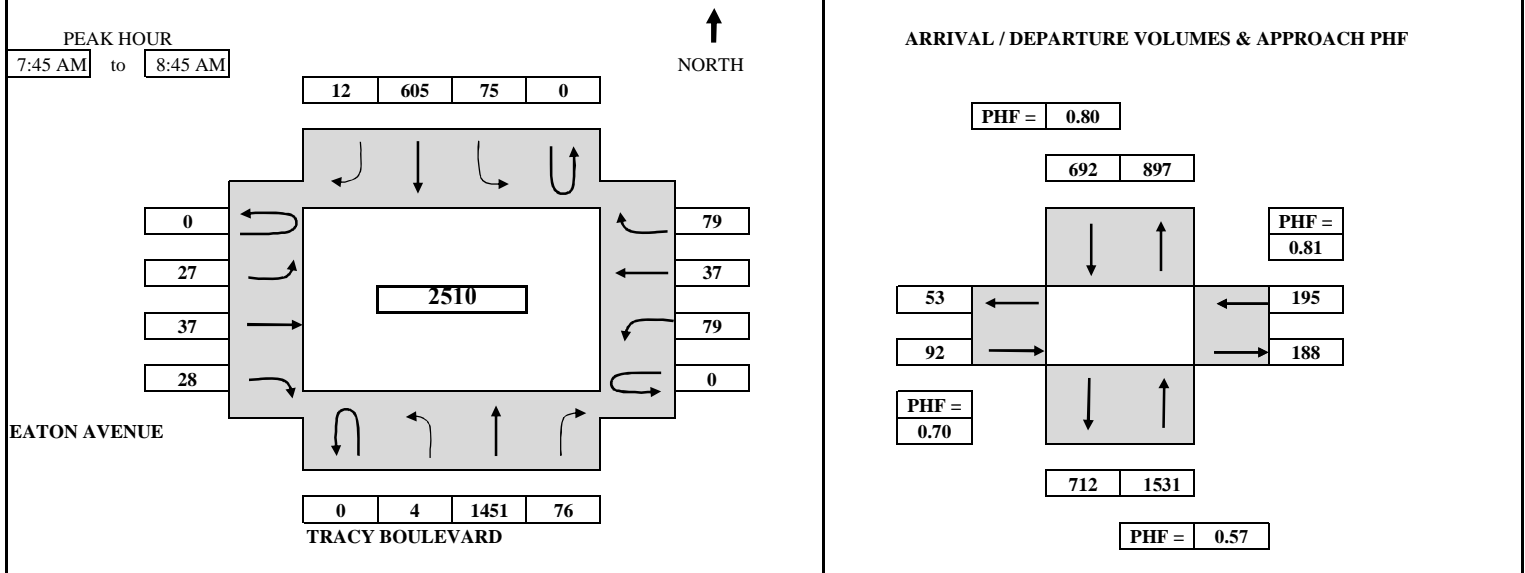
## Appendix B

- Intersection Turning Movement Counts
- Level of Service Worksheets: Existing Conditions (Scenario I)

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	TRACY BOULEVARD	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	EATON AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-8AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU
<b>SURVEY DATA</b>																		
7:00 AM	to	7:15 AM	0	106	7	6	68	1	1	3	1	3	1	6	203			
7:15 AM	to	7:30 AM	0	218	14	12	146	5	4	7	2	7	2	11	428			
7:30 AM	to	7:45 AM	1	389	39	19	271	10	6	11	5	10	7	26	794			
7:45 AM	to	8:00 AM	2	655	56	45	459	13	12	29	14	30	15	50	1380			
8:00 AM	to	8:15 AM	4	985	77	65	647	18	18	37	24	52	29	74	2030			
8:15 AM	to	8:30 AM	5	1640	94	87	772	21	24	42	30	72	36	92	2915			
8:30 AM	to	8:45 AM	5	1840	115	94	876	22	33	48	33	89	44	105	3304			
8:45 AM	to	9:00 AM	6	1980	137	105	989	27	38	52	37	99	49	111	3630			

<b>TOTAL BY PERIOD</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 7:15 AM	0	0	106	7	0	6	68	1	0	1	3	1	0	3	1	6	203	
7:15 AM to 7:30 AM	0	0	112	7	0	6	78	4	0	3	4	1	0	4	1	5	225	
7:30 AM to 7:45 AM	0	1	171	25	0	7	125	5	0	2	4	3	0	3	5	15	366	
7:45 AM to 8:00 AM	0	1	266	17	0	26	188	3	0	6	18	9	0	20	8	24	586	
8:00 AM to 8:15 AM	0	2	330	21	0	20	188	5	0	6	8	10	0	22	14	24	650	
8:15 AM to 8:30 AM	0	1	655	17	0	22	125	3	0	6	5	6	0	20	7	18	885	
8:30 AM to 8:45 AM	0	0	200	21	0	7	104	1	0	9	6	3	0	17	8	13	389	
8:45 AM to 9:00 AM	0	1	140	22	0	11	113	5	0	5	4	4	0	10	5	6	326	

<b>HOURLY TOTALS</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 8:00 AM	0	2	655	56	0	45	459	13	0	12	29	14	0	30	15	50	1380	
7:15 AM to 8:15 AM	0	4	219	70	0	59	579	17	0	17	34	23	0	49	28	68	1167	
7:30 AM to 8:30 AM	0	5	762	80	0	75	626	16	0	20	35	28	0	65	34	81	1827	
7:45 AM to 8:45 AM	0	4	1451	76	0	75	605	12	0	27	37	28	0	79	37	79	2510	
8:00 AM to 9:00 AM	0	4	665	81	0	60	530	14	0	26	23	23	0	69	34	61	1590	

<b>PEAK HOUR SUMMARY</b>																		
TIME PERIOD	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
7:45 AM to 8:45 AM	0	4	1451	76	0	75	605	12	0	27	37	28	0	79	37	79	2510	
PHF BY MOVEMENT	0.00	0.50	0.30	0.90	0.00	0.72	0.80	0.60	0.00	0.75	0.51	0.70	0.00	0.90	0.66	0.82	OVERALL	
PHF BY APPROACH	0.57				0.80				0.70				0.81				0.52	

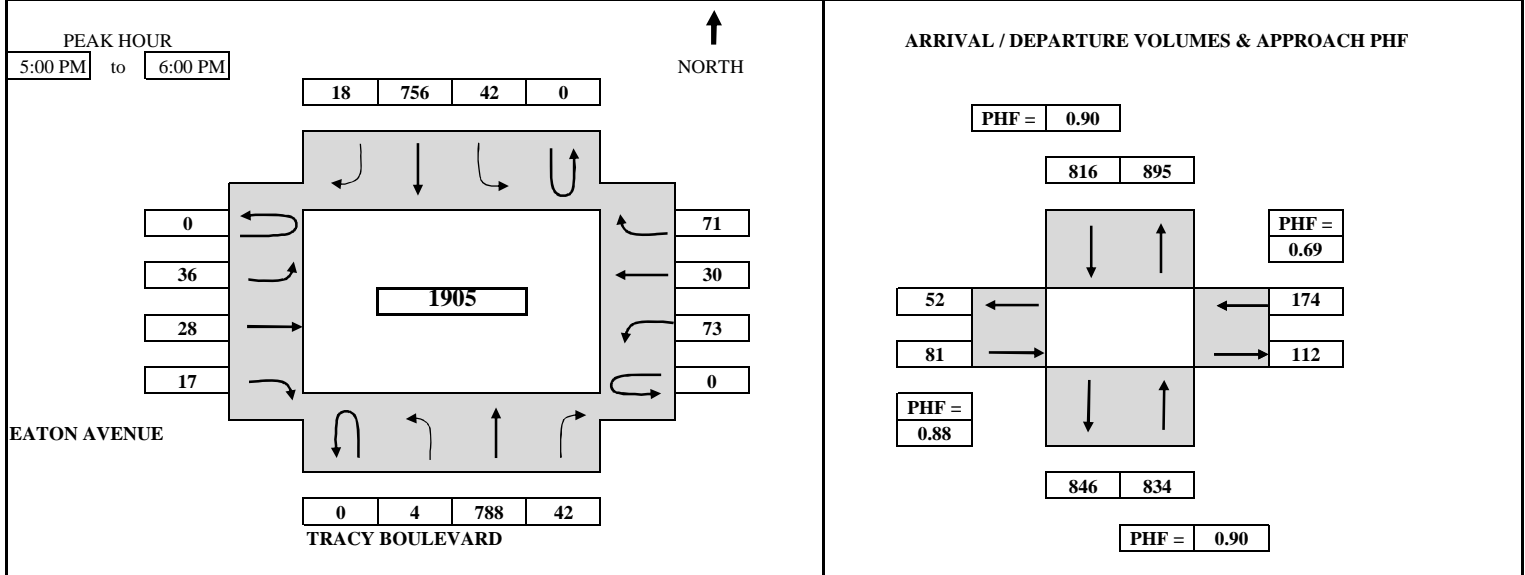
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	TRACY BOULEVARD	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	EATON AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-8PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU
<b>SURVEY DATA</b>																		
4:00 PM to 4:15 PM			4	180	15		16	185	2		9	7	8		39	15	29	509
4:15 PM to 4:30 PM			5	344	28		25	369	4		15	11	15		50	21	40	927
4:30 PM to 4:45 PM			5	518	38		43	571	9		19	22	22		72	26	58	1403
4:45 PM to 5:00 PM			11	679	50		57	763	12		24	35	27		86	33	72	1849
5:00 PM to 5:15 PM			12	859	56		69	941	17		33	44	31		116	42	96	2316
5:15 PM to 5:30 PM			14	1034	66		81	1152	21		40	50	34		130	47	114	2783
5:30 PM to 5:45 PM			14	1250	78		89	1329	28		48	55	41		142	57	128	3259
5:45 PM to 6:00 PM			15	1467	92		99	1519	30		60	63	44		159	63	143	3754

<b>TOTAL BY PERIOD</b>																		
4:00 PM to 4:15 PM	0	4	180	15	0	16	185	2	0	9	7	8	0	39	15	29	509	
4:15 PM to 4:30 PM	0	1	164	13	0	9	184	2	0	6	4	7	0	11	6	11	418	
4:30 PM to 4:45 PM	0	0	174	10	0	18	202	5	0	4	11	7	0	22	5	18	476	
4:45 PM to 5:00 PM	0	6	161	12	0	14	192	3	0	5	13	5	0	14	7	14	446	
5:00 PM to 5:15 PM	0	1	180	6	0	12	178	5	0	9	9	4	0	30	9	24	467	
5:15 PM to 5:30 PM	0	2	175	10	0	12	211	4	0	7	6	3	0	14	5	18	467	
5:30 PM to 5:45 PM	0	0	216	12	0	8	177	7	0	8	5	7	0	12	10	14	476	
5:45 PM to 6:00 PM	0	1	217	14	0	10	190	2	0	12	8	3	0	17	6	15	495	

<b>HOURLY TOTALS</b>																		
4:00 PM to 5:00 PM	0	11	679	50	0	57	763	12	0	24	35	27	0	86	33	72	1849	
4:15 PM to 5:15 PM	0	8	679	41	0	53	756	15	0	24	37	23	0	77	27	67	1807	
4:30 PM to 5:30 PM	0	9	690	38	0	56	783	17	0	25	39	19	0	80	26	74	1856	
4:45 PM to 5:45 PM	0	9	732	40	0	46	758	19	0	29	33	19	0	70	31	70	1856	
5:00 PM to 6:00 PM	0	4	788	42	0	42	756	18	0	36	28	17	0	73	30	71	1905	

<b>PEAK HOUR SUMMARY</b>																		
5:00 PM to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
VOLUME	0	4	788	42	0	42	756	18	0	36	28	17	0	73	30	71	1905	
PHF BY MOVEMENT	0.00	0.50	0.91	0.75	0.00	0.88	0.90	0.64	0.00	0.75	0.78	0.61	0.00	0.61	0.75	0.74	OVERALL	
PHF BY APPROACH	0.90				0.90				0.88				0.69				0.96	

TEL: (510) 232 - 1271

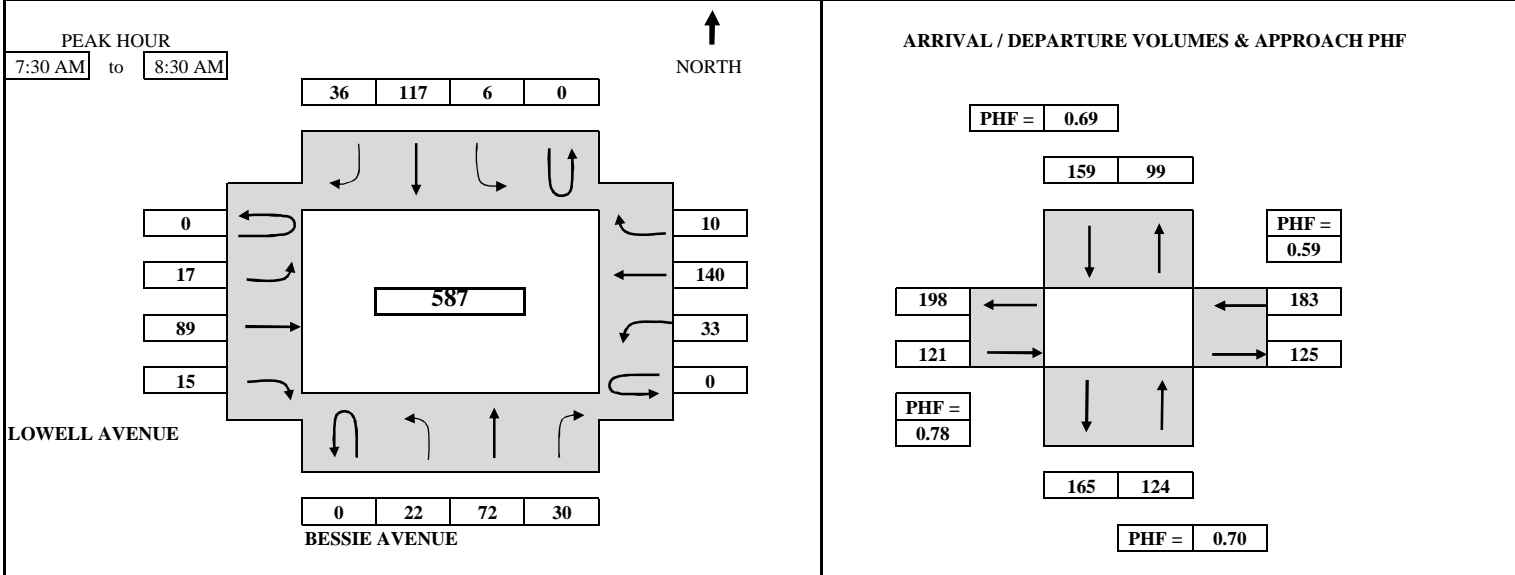
FAX: (510) 232 - 1272



# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	BESSIE AVENUE	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	LOWELL AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-7AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
7:00 AM to 7:15 AM			1	3	0		1	7	2		1	10	1		0	5	0		31
7:15 AM to 7:30 AM			1	13	0		1	19	7		1	21	2		0	18	0		83
7:30 AM to 7:45 AM			4	23	11		3	40	23		7	48	4		4	61	1		229
7:45 AM to 8:00 AM			12	48	22		7	84	33		13	76	9		22	116	5		447
8:00 AM to 8:15 AM			21	74	27		7	117	42		16	94	13		30	143	8		592
8:15 AM to 8:30 AM			23	85	30		7	136	43		18	110	17		33	158	10		670
8:30 AM to 8:45 AM			26	100	31		7	151	44		19	123	19		34	173	10		737
8:45 AM to 9:00 AM			30	110	32		8	162	46		20	136	21		37	184	10		796

<b>TOTAL BY PERIOD</b>																			
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL		
7:00 AM to 7:15 AM	0	1	3	0	0	1	7	2	0	1	10	1	0	0	5	0	31		
7:15 AM to 7:30 AM	0	0	10	0	0	0	12	5	0	0	11	1	0	0	13	0	52		
7:30 AM to 7:45 AM	0	3	10	11	0	2	21	16	0	6	27	2	0	4	43	1	146		
7:45 AM to 8:00 AM	0	8	25	11	0	4	44	10	0	6	28	5	0	18	55	4	218		
8:00 AM to 8:15 AM	0	9	26	5	0	0	33	9	0	3	18	4	0	8	27	3	145		
8:15 AM to 8:30 AM	0	2	11	3	0	0	19	1	0	2	16	4	0	3	15	2	78		
8:30 AM to 8:45 AM	0	3	15	1	0	0	15	1	0	1	13	2	0	1	15	0	67		
8:45 AM to 9:00 AM	0	4	10	1	0	1	11	2	0	1	13	2	0	3	11	0	59		

<b>HOURLY TOTALS</b>																			
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL		
7:00 AM to 8:00 AM	0	12	48	22	0	7	84	33	0	13	76	9	0	22	116	5	447		
7:15 AM to 8:15 AM	0	20	71	27	0	6	110	40	0	15	84	12	0	30	138	8	561		
7:30 AM to 8:30 AM	0	22	72	30	0	6	117	36	0	17	89	15	0	33	140	10	587		
7:45 AM to 8:45 AM	0	22	77	20	0	4	111	21	0	12	75	15	0	30	112	9	508		
8:00 AM to 9:00 AM	0	18	62	10	0	1	78	13	0	7	60	12	0	15	68	5	349		

<b>PEAK HOUR SUMMARY</b>																			
TIME PERIOD	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL		
7:30 AM to 8:30 AM	0	22	72	30	0	6	117	36	0	17	89	15	0	33	140	10	587		
PHF BY MOVEMENT	0.00	0.61	0.69	0.68	0.00	0.38	0.66	0.56	0.00	0.71	0.79	0.75	0.00	0.46	0.64	0.63	OVERALL		
PHF BY APPROACH	0.70				0.69				0.78				0.59				0.67		

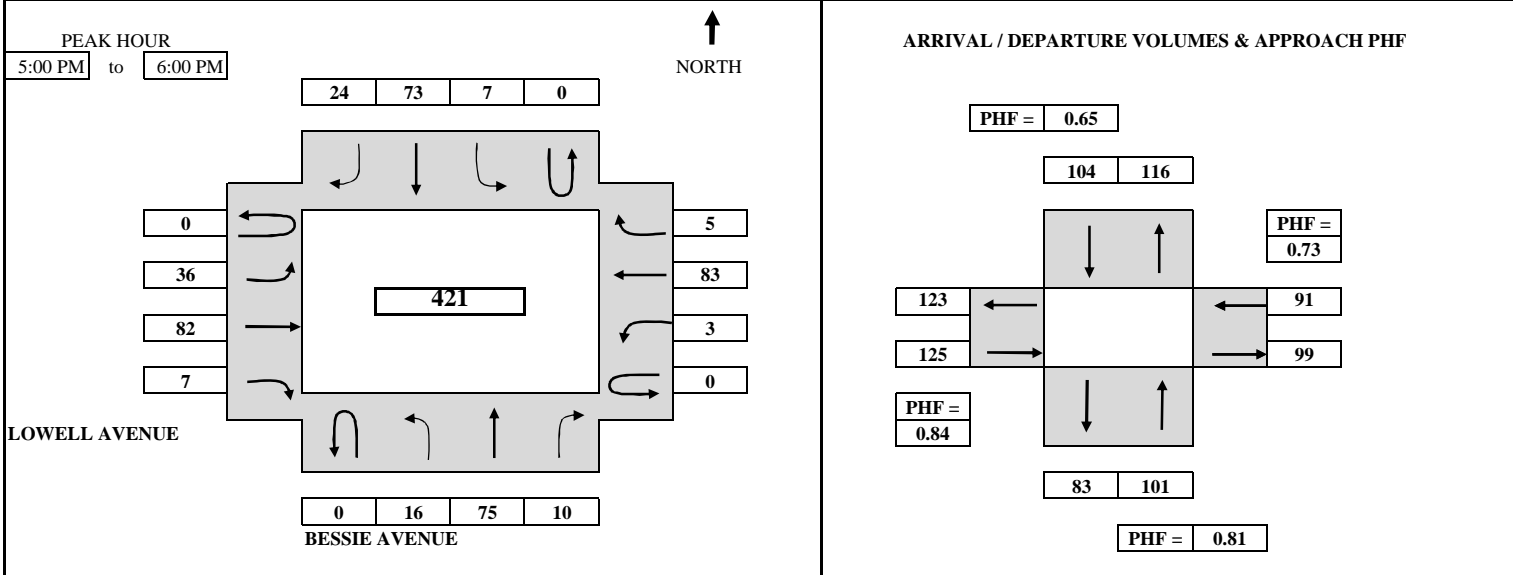
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	BESSIE AVENUE	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	LOWELL AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-7PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU
<b>SURVEY DATA</b>																		
4:00 PM to 4:15 PM			8	15	2		3	11	4		6	22	2		2	32	1	<b>108</b>
4:15 PM to 4:30 PM			14	34	6		4	30	7		10	38	6		7	54	4	<b>214</b>
4:30 PM to 4:45 PM			24	53	8		5	40	8		12	57	9		8	78	5	<b>307</b>
4:45 PM to 5:00 PM			28	68	11		8	58	12		14	80	12		11	93	5	<b>400</b>
5:00 PM to 5:15 PM			35	89	14		9	72	15		20	99	13		11	109	5	<b>491</b>
5:15 PM to 5:30 PM			38	107	17		10	87	19		27	122	14		13	131	6	<b>591</b>
5:30 PM to 5:45 PM			41	122	19		13	101	28		39	139	16		13	149	7	<b>687</b>
5:45 PM to 6:00 PM			44	143	21		15	131	36		50	162	19		14	176	10	<b>821</b>

<b>TOTAL BY PERIOD</b>																		
4:00 PM to 4:15 PM	0	8	15	2	0	3	11	4	0	6	22	2	0	2	32	1	<b>108</b>	
4:15 PM to 4:30 PM	0	6	19	4	0	1	19	3	0	4	16	4	0	5	22	3	<b>106</b>	
4:30 PM to 4:45 PM	0	10	19	2	0	1	10	1	0	2	19	3	0	1	24	1	<b>93</b>	
4:45 PM to 5:00 PM	0	4	15	3	0	3	18	4	0	2	23	3	0	3	15	0	<b>93</b>	
5:00 PM to 5:15 PM	0	7	21	3	0	1	14	3	0	6	19	1	0	0	16	0	<b>91</b>	
5:15 PM to 5:30 PM	0	3	18	3	0	1	15	4	0	7	23	1	0	2	22	1	<b>100</b>	
5:30 PM to 5:45 PM	0	3	15	2	0	3	14	9	0	12	17	2	0	0	18	1	<b>96</b>	
5:45 PM to 6:00 PM	0	3	21	2	0	2	30	8	0	11	23	3	0	1	27	3	<b>134</b>	

<b>HOURLY TOTALS</b>																		
4:00 PM to 5:00 PM	0	28	68	11	0	8	58	12	0	14	80	12	0	11	93	5	<b>400</b>	
4:15 PM to 5:15 PM	0	27	74	12	0	6	61	11	0	14	77	11	0	9	77	4	<b>383</b>	
4:30 PM to 5:30 PM	0	24	73	11	0	6	57	12	0	17	84	8	0	6	77	2	<b>377</b>	
4:45 PM to 5:45 PM	0	17	69	11	0	8	61	20	0	27	82	7	0	5	71	2	<b>380</b>	
5:00 PM to 6:00 PM	0	16	75	10	0	7	73	24	0	36	82	7	0	3	83	5	<b>421</b>	

<b>PEAK HOUR SUMMARY</b>																		
5:00 PM to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
VOLUME	0	16	75	10	0	7	73	24	0	36	82	7	0	3	83	5	<b>421</b>	
PHF BY MOVEMENT	0.00	0.57	0.89	0.83	0.00	0.58	0.61	0.67	0.00	0.75	0.89	0.58	0.00	0.38	0.77	0.42	<b>OVERALL</b>	
PHF BY APPROACH	0.81				0.65				0.84				0.73				0.79	

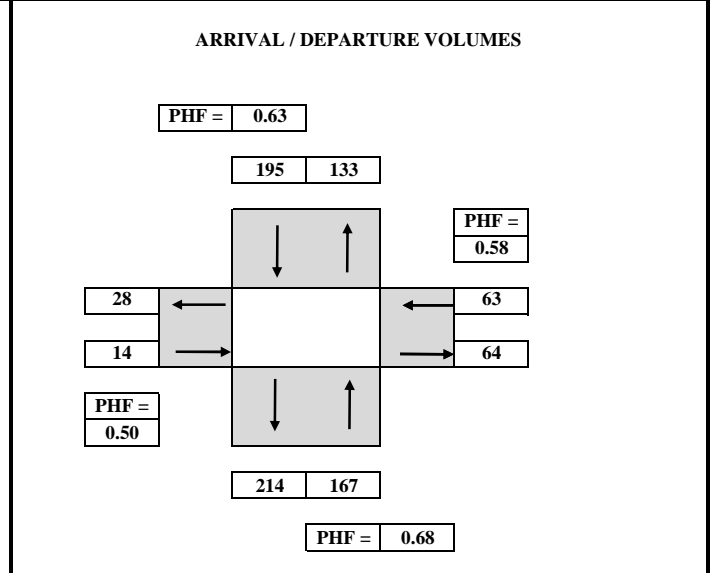
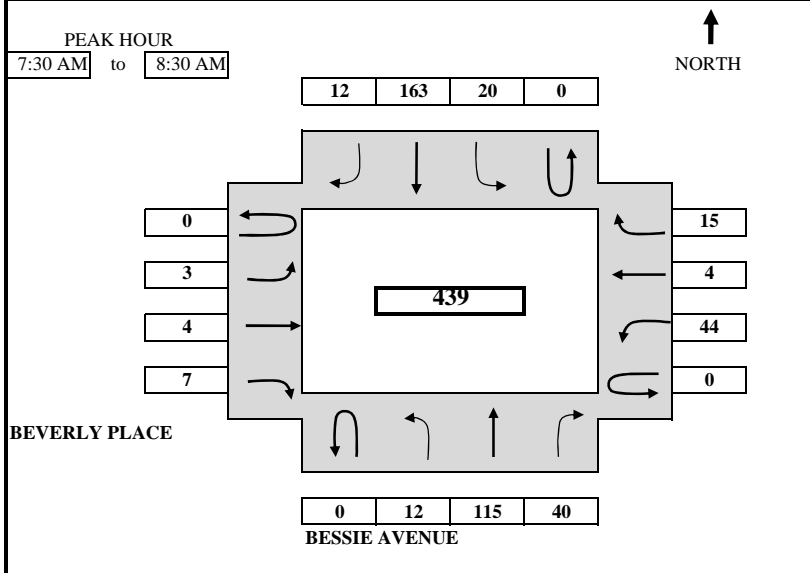
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	<b>TRAFFIC COUNTS IN TRACY</b>	<b>SURVEY DATE:</b>	<b>9/23/2014</b>	<b>DAY:</b>	<b>TUESDAY</b>
<b>N-S APPROACH:</b>	<b>BESSIE AVENUE</b>	<b>SURVEY TIME:</b>	<b>7:00 AM</b>	<b>TO</b>	<b>9:00 AM</b>
<b>E-W APPROACH:</b>	<b>BEVERLY PLACE</b>	<b>JURISDICTION:</b>	<b>TRACY</b>	<b>FILE:</b>	<b>3409111-2AM</b>



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
7:00 AM	to	7:15 AM	0	5	0	3	5	1	0	1	1	1	1	1	1	1	1	1	19
7:15 AM	to	7:30 AM	1	14	2	5	17	3	1	1	2	6	1	1	54				
7:30 AM	to	7:45 AM	2	33	11	8	45	4	3	4	4	9	1	5	129				
7:45 AM	to	8:00 AM	3	71	33	12	96	9	3	5	6	22	2	11	273				
8:00 AM	to	8:15 AM	5	112	38	20	163	11	4	5	8	44	4	14	428				
8:15 AM	to	8:30 AM	13	129	42	25	180	15	4	5	9	50	5	16	493				
8:30 AM	to	8:45 AM	18	147	46	28	199	18	4	5	11	51	5	18	550				
8:45 AM	to	9:00 AM	25	162	51	35	213	20	5	6	11	52	6	21	607				

<b>TOTAL BY PERIOD</b>																			
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL		
7:00 AM to 7:15 AM	0	0	5	0	0	3	5	1	0	0	1	1	0	1	1	1	19		
7:15 AM to 7:30 AM	0	1	9	2	0	2	12	2	0	1	0	1	0	5	0	0	35		
7:30 AM to 7:45 AM	0	1	19	9	0	3	28	1	0	2	3	2	0	3	0	4	75		
7:45 AM to 8:00 AM	0	1	38	22	0	4	51	5	0	0	1	2	0	13	1	6	144		
8:00 AM to 8:15 AM	0	2	41	5	0	8	67	2	0	1	0	2	0	22	2	3	155		
8:15 AM to 8:30 AM	0	8	17	4	0	5	17	4	0	0	0	1	0	6	1	2	65		
8:30 AM to 8:45 AM	0	5	18	4	0	3	19	3	0	0	0	2	0	1	0	2	57		
8:45 AM to 9:00 AM	0	7	15	5	0	7	14	2	0	1	1	0	0	1	1	3	57		

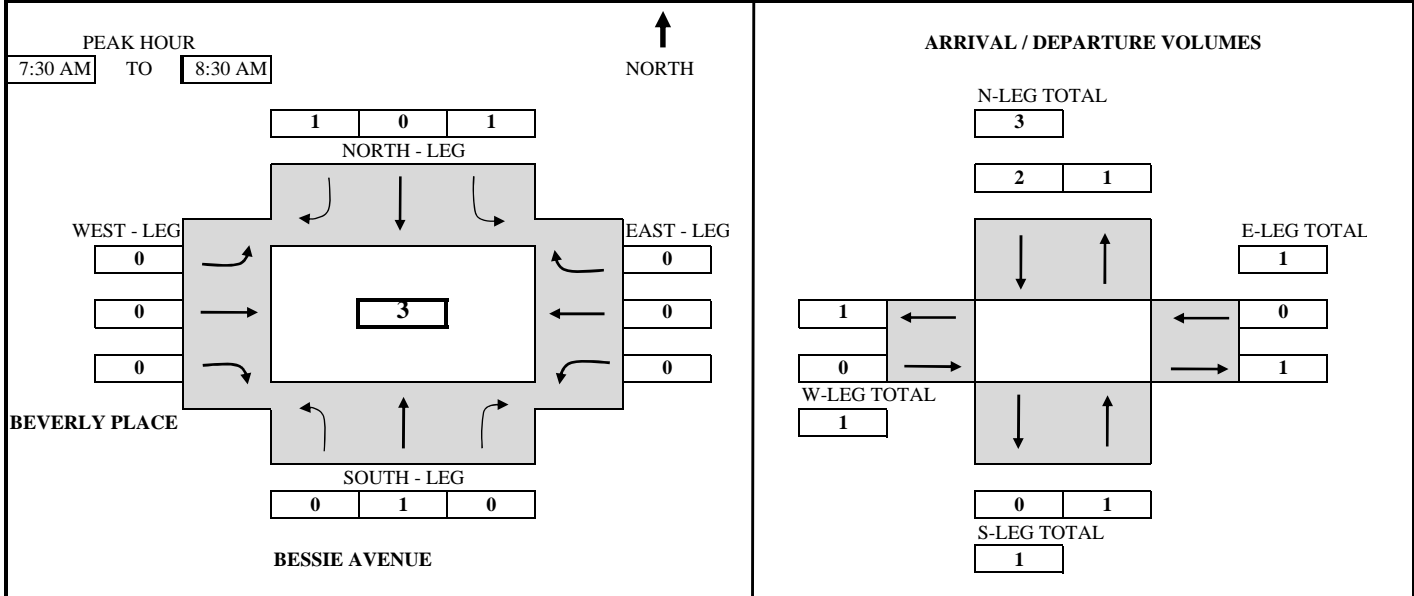
<b>HOURLY TOTALS</b>																			
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL		
7:00 AM to 8:00 AM	0	3	71	33	0	12	96	9	0	3	5	6	0	22	2	11	273		
7:15 AM to 8:15 AM	0	5	107	38	0	17	158	10	0	4	4	7	0	43	3	13	409		
7:30 AM to 8:30 AM	0	12	115	40	0	20	163	12	0	3	4	7	0	44	4	15	439		
7:45 AM to 8:45 AM	0	16	114	35	0	20	154	14	0	1	1	7	0	42	4	13	421		
8:00 AM to 9:00 AM	0	22	91	18	0	23	117	11	0	2	1	5	0	30	4	10	334		

<b>PEAK HOUR SUMMARY</b>																			
TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR			
7:30 AM to 8:30 AM	0	12	115	40	0	20	163	12	0	3	4	7	0	44	4	15	439		
PHF BY MOVEMENT	0.00	0.38	0.70	0.45	0.00	0.63	0.61	0.60	0.00	0.38	0.33	0.88	0.00	0.50	0.50	0.63	OVERALL		
PHF BY APPROACH	0.68				0.63				0.50				0.58				0.71		
PEDESTRIAN																	23		
BICYCLE																	3		

# B.A.Y.M.E.T.R.I.C.S.

## BICYCLE MOVEMENT SUMMARY

PROJECT: TRAFFIC COUNTS IN TRACY SURVEY DATE: 9/23/2014 DAY: TUESDAY  
 N-S APPROACH: BESSIE AVENUE SURVEY TIME: 7:00 AM TO 9:00 AM  
 E-W APPROACH BEVERLY PLACE JURISDICTION: TRACY FILE: 3409111-2AM



TIME	PERIOD	NB (SOUTH - LEG)			SB (NORTH - LEG)			EB (WEST - LEG)			WB (EAST - LEG)			TOTAL
		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	

SURVEY DATA														
7:00 AM	to	7:15 AM	0	0	0	1	0	0	0	0	0	0	0	1
7:15 AM	to	7:30 AM	0	0	0	1	0	0	0	0	0	0	0	1
7:30 AM	to	7:45 AM	0	0	0	2	0	0	0	0	0	0	0	2
7:45 AM	to	8:00 AM	0	1	0	2	0	1	0	0	0	0	0	4
8:00 AM	to	8:15 AM	0	1	0	2	0	1	0	0	0	0	0	4
8:15 AM	to	8:30 AM	0	1	0	2	0	1	0	0	0	0	0	4
8:30 AM	to	8:45 AM	0	1	0	2	0	1	0	0	0	0	0	4
8:45 AM	to	9:00 AM	0	2	0	2	0	1	0	0	0	0	0	5

TOTAL BY PERIOD														
7:00 AM	to	7:15 AM	0	0	0	1	0	0	0	0	0	0	0	1
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	to	8:00 AM	0	1	0	0	0	1	0	0	0	0	0	2
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	1	0	0	0	0	0	0	0	0	0	1

HOURLY TOTALS														
7:00 AM	to	8:00 AM	0	1	0	2	0	1	0	0	0	0	0	4
7:15 AM	to	8:15 AM	0	1	0	1	0	1	0	0	0	0	0	3
7:30 AM	to	8:30 AM	0	1	0	1	0	1	0	0	0	0	0	3
7:45 AM	to	8:45 AM	0	1	0	0	0	1	0	0	0	0	0	2
8:00 AM	to	9:00 AM	0	1	0	0	0	0	0	0	0	0	0	1

TEL: (510) 232 - 1271

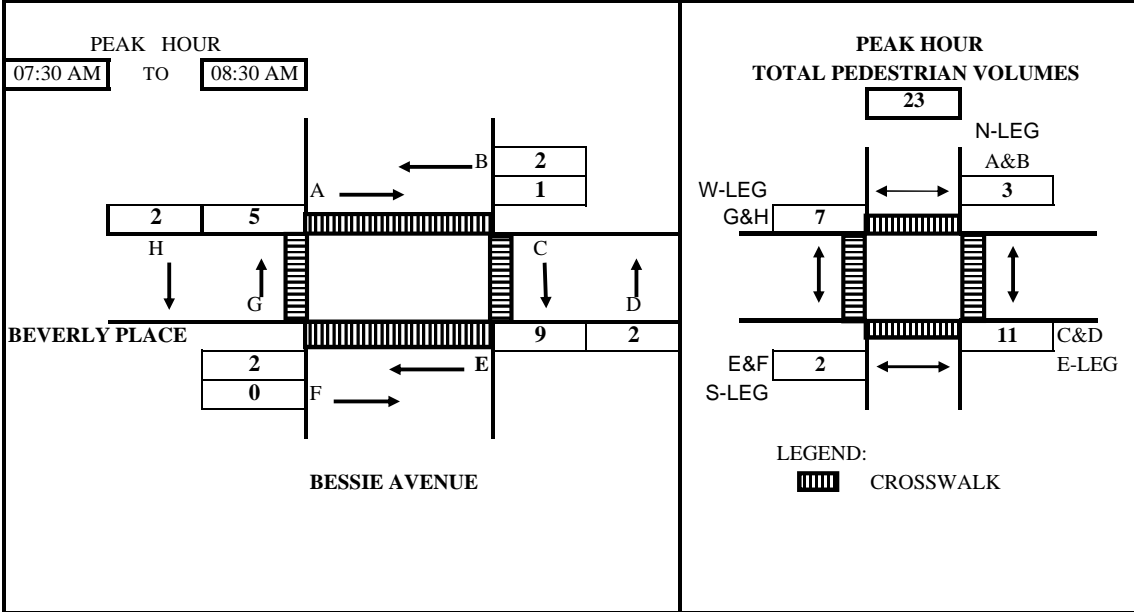
FAX: (510) 232 - 1272

7:30 AM to 8:30 AM					
VOLUME BY APPROACH	NBT	SBT	EBT	WBT	TOTAL
BICYCLE	1	2	0	0	3

# B.A.Y.M.E.T.R.I.C.S.

## PEDESTRIAN MOVEMENT SUMMARY

<b>PROJECT:</b> TRAFFIC COUNTS IN TRACY		<b>SURVEY DATE:</b> 9/23/2014	
<b>N-S APPROACH:</b> BESSIE AVENUE		<b>DAY:</b> TUESDAY	
<b>E-W APPROACH:</b> BEVERLY PLACE		<b>JURISDICTION:</b> TRACY	
<b>SURVEY PERIOD:</b> 7:00 AM TO 9:00 AM		<b>FILE:</b> 3409111-2AM	



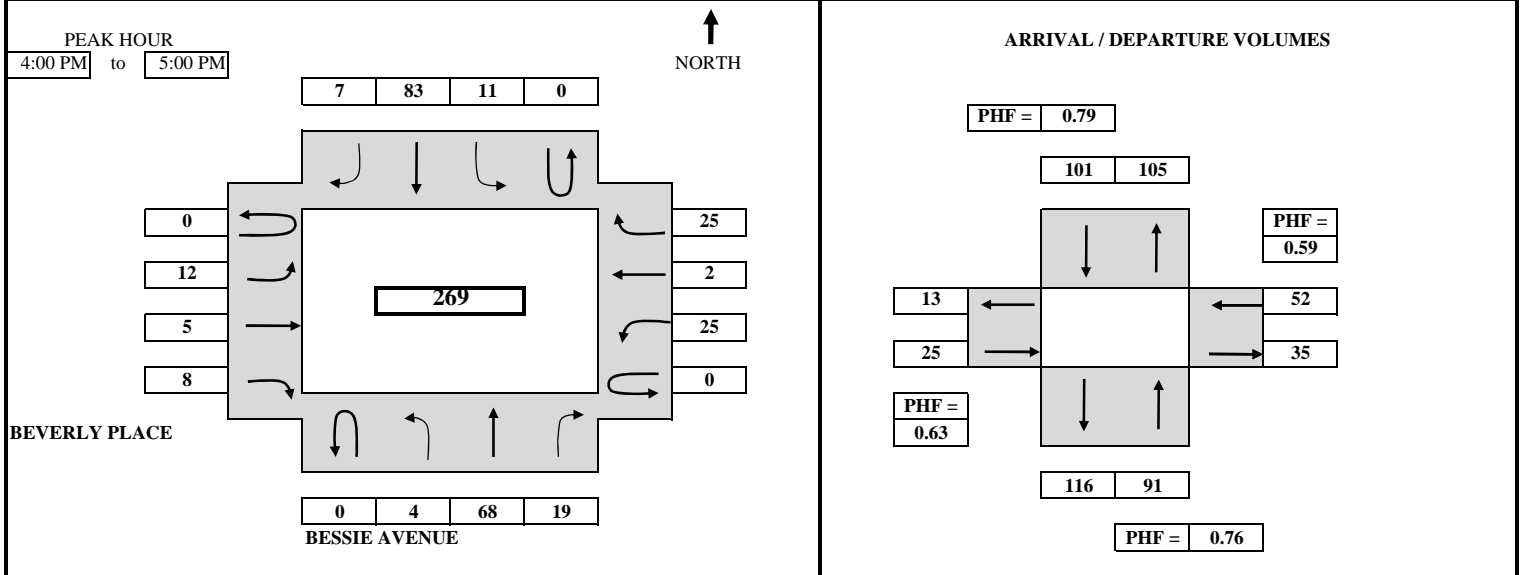
TIME PERIOD			NORTH X-WALK		EAST X-WALK		SOUTH X-WALK		WEST X-WALK		TOTAL
From	To		A	B	C	D	E	F	G	H	
<b>SURVEY DATA</b>											
07:00 AM	---	07:15 AM	0	0	0	0	1	1	0	0	2
07:15 AM	---	07:30 AM	0	1	0	0	2	1	0	1	5
07:30 AM	---	07:45 AM	1	3	2	0	2	1	1	2	12
07:45 AM	---	08:00 AM	1	3	3	1	2	1	2	3	16
08:00 AM	---	08:15 AM	1	3	9	1	4	1	4	3	26
08:15 AM	---	08:30 AM	1	3	9	2	4	1	5	3	28
08:30 AM	---	08:45 AM	2	3	9	3	4	1	5	6	33
08:45 AM	---	09:00 AM	3	5	9	3	5	1	5	9	40
<b>TOTAL BY PERIOD</b>											
07:00 AM	---	07:15 AM	0	0	0	0	1	1	0	0	2
07:15 AM	---	07:30 AM	0	1	0	0	1	0	0	1	3
07:30 AM	---	07:45 AM	1	2	2	0	0	0	1	1	7
07:45 AM	---	08:00 AM	0	0	1	1	0	0	1	1	4
08:00 AM	---	08:15 AM	0	0	6	0	2	0	2	0	10
08:15 AM	---	08:30 AM	0	0	0	1	0	0	1	0	2
08:30 AM	---	08:45 AM	1	0	0	1	0	0	0	3	5
08:45 AM	---	09:00 AM	1	2	0	0	1	0	0	3	7
<b>HOURLY TOTALS</b>											
07:00 AM	---	08:00 AM	1	3	3	1	2	1	2	3	16
07:15 AM	---	08:15 AM	1	3	9	1	3	0	4	3	24
07:30 AM	---	08:30 AM	1	2	9	2	2	0	5	2	23
07:45 AM	---	08:45 AM	1	0	7	3	2	0	4	4	21
08:00 AM	---	09:00 AM	2	2	6	2	3	0	3	6	24
<b>Tel : (510) 232-1271</b>						<b>Fax : (510) 232-1272</b>					

7:30 AM	to	8:30 AM					
<b>VOLUME BY LEG</b>			N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
PEDESTRIAN			3	2	11	7	23

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	BESSIE AVENUE	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	BEVERLY PLACE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-2PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
4:00 PM	to	4:15 PM	0	24	6	2	28	2	5	2	3	14	1	7	94				
4:15 PM	to	4:30 PM	1	38	11	5	50	7	7	3	4	17	2	9	154				
4:30 PM	to	4:45 PM	3	57	16	8	65	7	11	5	6	20	2	20	220				
4:45 PM	to	5:00 PM	4	68	19	11	83	7	12	5	8	25	2	25	269				
5:00 PM	to	5:15 PM	5	85	21	13	103	10	13	8	10	33	3	40	344				
5:15 PM	to	5:30 PM	6	103	23	17	120	12	14	9	11	37	5	41	398				
5:30 PM	to	5:45 PM	8	124	29	21	136	14	15	10	11	40	6	42	456				
5:45 PM	to	6:00 PM	9	146	31	28	163	16	16	11	13	40	10	46	529				

<b>TOTAL BY PERIOD</b>																			
4:00 PM	to	4:15 PM	0	0	24	6	0	2	28	2	0	5	2	3	0	14	1	7	94
4:15 PM	to	4:30 PM	0	1	14	5	0	3	22	5	0	2	1	1	0	3	1	2	60
4:30 PM	to	4:45 PM	0	2	19	5	0	3	15	0	0	4	2	2	0	3	0	11	66
4:45 PM	to	5:00 PM	0	1	11	3	0	3	18	0	0	1	0	2	0	5	0	5	49
5:00 PM	to	5:15 PM	0	1	17	2	0	2	20	3	0	1	3	2	0	8	1	15	75
5:15 PM	to	5:30 PM	0	1	18	2	0	4	17	2	0	1	1	1	0	4	2	1	54
5:30 PM	to	5:45 PM	0	2	21	6	0	4	16	2	0	1	1	0	0	3	1	1	58
5:45 PM	to	6:00 PM	0	1	22	2	0	7	27	2	0	1	1	2	0	0	4	4	73

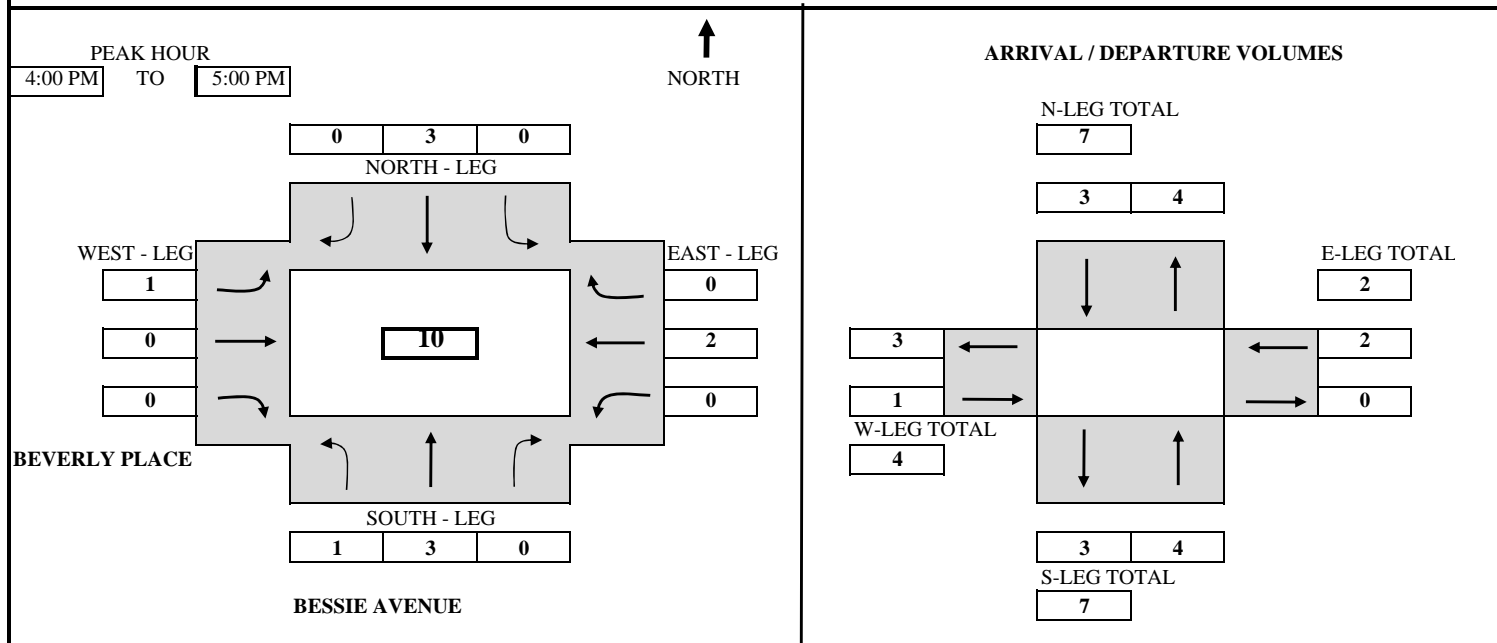
<b>HOURLY TOTALS</b>																			
4:00 PM	to	5:00 PM	0	4	68	19	0	11	83	7	0	12	5	8	0	25	2	25	269
4:15 PM	to	5:15 PM	0	5	61	15	0	11	75	8	0	8	6	7	0	19	2	33	250
4:30 PM	to	5:30 PM	0	5	65	12	0	12	70	5	0	7	6	7	0	20	3	32	244
4:45 PM	to	5:45 PM	0	5	67	13	0	13	71	7	0	4	5	5	0	20	4	22	236
5:00 PM	to	6:00 PM	0	5	78	12	0	17	80	9	0	4	6	5	0	15	8	21	260

<b>PEAK HOUR SUMMARY</b>																				
4:00 PM	to	5:00 PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
			NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR		
			0	4	68	19	0	11	83	7	0	12	5	8	0	25	2	25	269	
			0.00	0.50	0.71	0.79	0.00	0.92	0.74	0.35	0.00	0.60	0.63	0.67	0.00	0.45	0.50	0.57	OVERALL	
			0.76				0.79				0.63				0.59				0.72	
			PEDESTRIAN																	19
			BICYCLE																	10

# B.A.Y.M.E.T.R.I.C.S.

## BICYCLE MOVEMENT SUMMARY

PROJECT: TRAFFIC COUNTS IN TRACY	SURVEY DATE: 9/23/2014	DAY: TUESDAY
N-S APPROACH: BESSIE AVENUE	SURVEY TIME: 4:00 PM	TO 6:00 PM
E-W APPROACH BEVERLY PLACE	JURISDICTION: TRACY	FILE: 3409111-2PM



TIME	PERIOD	NB (SOUTH - LEG)			SB (NORTH - LEG)			EB (WEST - LEG)			WB (EAST - LEG)			TOTAL
		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	

SURVEY DATA															
4:00 PM	to	4:15 PM	1	0	0	0	0	0	1	0	0	0	1	0	3
4:15 PM	to	4:30 PM	1	3	0	0	3	0	1	0	0	0	1	0	9
4:30 PM	to	4:45 PM	1	3	0	0	3	0	1	0	0	0	1	0	9
4:45 PM	to	5:00 PM	1	3	0	0	3	0	1	0	0	0	2	0	10
5:00 PM	to	5:15 PM	1	3	0	0	3	0	1	0	0	0	2	0	10
5:15 PM	to	5:30 PM	1	3	0	0	3	0	1	0	0	0	2	0	10
5:30 PM	to	5:45 PM	1	4	0	0	3	0	1	0	0	0	2	0	11
5:45 PM	to	6:00 PM	1	4	0	0	4	0	1	0	0	0	2	0	12

TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	1	0	0	0	0	0	1	0	0	0	1	0	3
4:15 PM	to	4:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	6
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	to	6:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1

HOURLY TOTALS															
4:00 PM	to	5:00 PM	1	3	0	0	3	0	1	0	0	0	2	0	10
4:15 PM	to	5:15 PM	0	3	0	0	3	0	0	0	0	0	1	0	7
4:30 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	to	5:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
5:00 PM	to	6:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2

TEL: (510) 232 - 1271

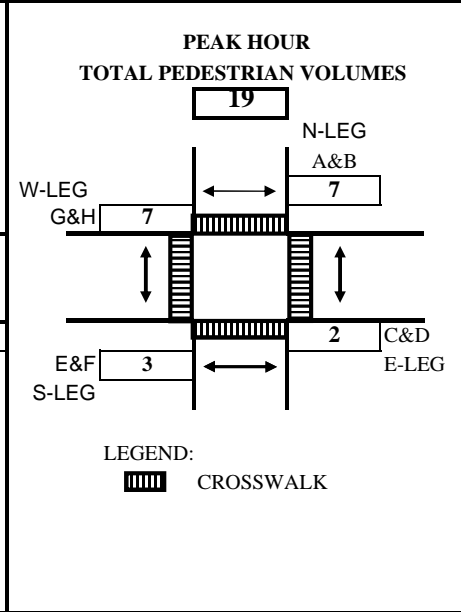
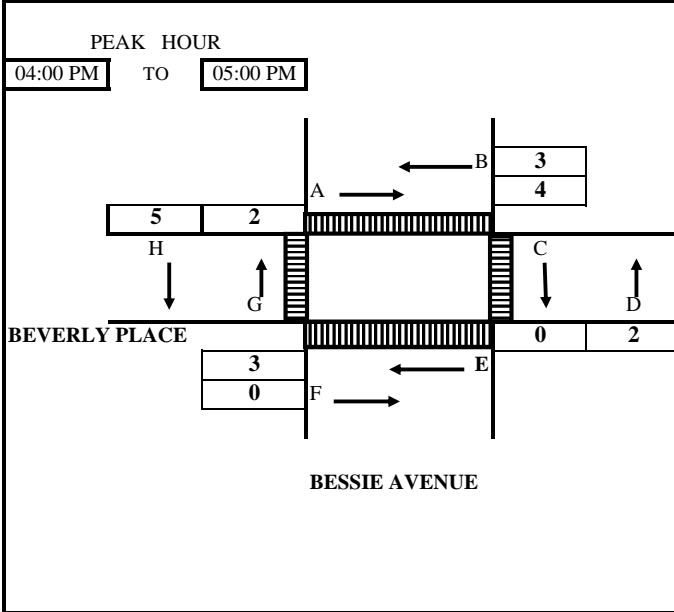
FAX: (510) 232 - 1272

4:00 PM	to	5:00 PM					
VOLUME BY APPROACH			NBT	SBT	EBT	WBT	TOTAL
BICYCLE			4	3	1	2	10

# B.A.Y.M.E.T.R.I.C.S.

## PEDESTRIAN MOVEMENT SUMMARY

<b>PROJECT:</b> TRAFFIC COUNTS IN TRACY		<b>SURVEY DATE:</b> 9/23/2014	
<b>N-S APPROACH:</b> BESSIE AVENUE		<b>DAY:</b> TUESDAY	
<b>E-W APPROACH:</b> BEVERLY PLACE		<b>JURISDICTION:</b> TRACY	
<b>SURVEY PERIOD:</b> 4:00 PM TO 6:00 PM		<b>FILE:</b> 3409111-2PM	



TIME PERIOD		NORTH X-WALK		EAST X-WALK		SOUTH X-WALK		WEST X-WALK		TOTAL	
From	To	A	B	C	D	E	F	G	H		
<b>SURVEY DATA</b>											
04:00 PM	---	04:15 PM	4	3	0	0	2	0	1	3	13
04:15 PM	---	04:30 PM	4	3	0	0	2	0	1	5	15
04:30 PM	---	04:45 PM	4	3	0	2	2	0	2	5	18
04:45 PM	---	05:00 PM	4	3	0	2	3	0	2	5	19
05:00 PM	---	05:15 PM	4	3	0	2	3	1	3	5	21
05:15 PM	---	05:30 PM	4	3	0	2	3	1	3	5	21
05:30 PM	---	05:45 PM	4	3	0	2	3	2	4	5	23
05:45 PM	---	06:00 PM	5	3	0	2	4	3	4	5	26
<b>TOTAL BY PERIOD</b>											
04:00 PM	---	04:15 PM	4	3	0	0	2	0	1	3	13
04:15 PM	---	04:30 PM	0	0	0	0	0	0	0	2	2
04:30 PM	---	04:45 PM	0	0	0	2	0	0	1	0	3
04:45 PM	---	05:00 PM	0	0	0	0	1	0	0	0	1
05:00 PM	---	05:15 PM	0	0	0	0	0	1	1	0	2
05:15 PM	---	05:30 PM	0	0	0	0	0	0	0	0	0
05:30 PM	---	05:45 PM	0	0	0	0	0	1	1	0	2
05:45 PM	---	06:00 PM	1	0	0	0	1	1	0	0	3
<b>HOURLY TOTALS</b>											
04:00 PM	---	05:00 PM	4	3	0	2	3	0	2	5	19
04:15 PM	---	05:15 PM	0	0	0	2	1	1	2	2	8
04:30 PM	---	05:30 PM	0	0	0	2	1	1	2	0	6
04:45 PM	---	05:45 PM	0	0	0	0	1	2	2	0	5
05:00 PM	---	06:00 PM	1	0	0	0	1	3	2	0	7
<b>Tel : (510) 232-1271</b>			<b>Fax : (510) 232-1272</b>								

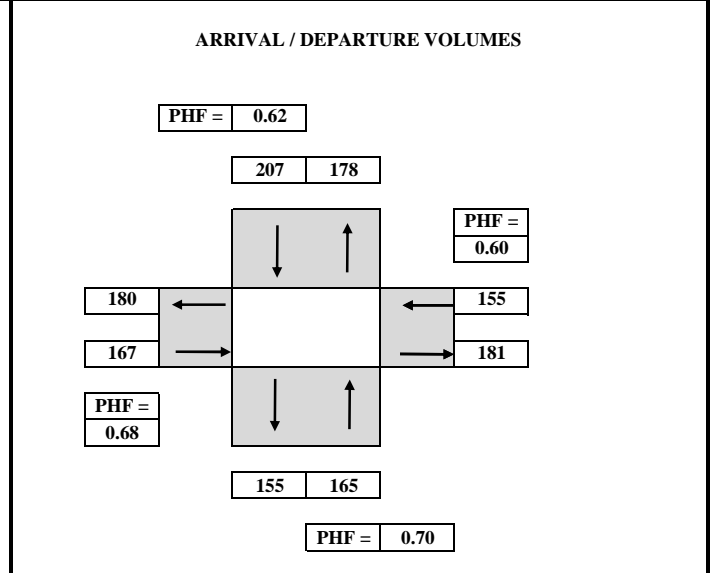
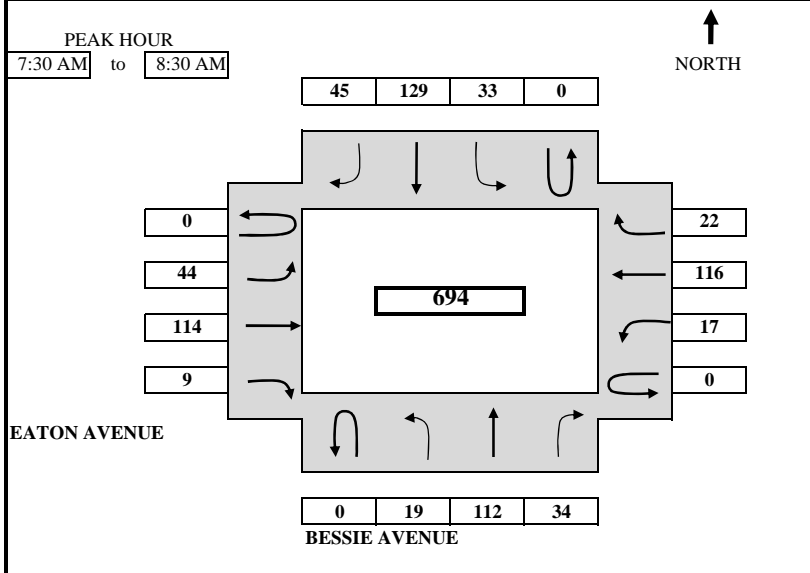
4:00 PM to 5:00 PM						
VOLUME BY LEG	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL	
PEDESTRIAN	7	3	2	7	19	



# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	BESSIE AVENUE	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	EATON AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-5AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
7:00 AM to 7:15 AM			1	8	0	0	0	8	1	2	12	2	1	8	0				43
7:15 AM to 7:30 AM			2	20	3	1	2	19	4	9	20	2	1	17	1				101
7:30 AM to 7:45 AM			7	43	18	1	9	35	12	16	44	3	2	31	2				223
7:45 AM to 8:00 AM			14	86	27	1	18	75	31	34	87	3	6	58	9				449
8:00 AM to 8:15 AM			20	114	32	1	35	131	42	41	118	8	16	100	22				680
8:15 AM to 8:30 AM			21	132	37	1	35	148	49	53	134	11	18	133	23				795
8:30 AM to 8:45 AM			23	143	39	1	48	160	60	69	147	11	23	150	26				900
8:45 AM to 9:00 AM			27	160	43	1	39	167	68	78	165	12	23	159	28				970

<b>TOTAL BY PERIOD</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 7:15 AM	0	1	8	0	0	0	8	1	0	2	12	2	0	1	8	0	43	
7:15 AM to 7:30 AM	0	1	12	3	1	2	11	3	0	7	8	0	0	0	9	1	58	
7:30 AM to 7:45 AM	0	5	23	15	0	7	16	8	0	7	24	1	0	1	14	1	122	
7:45 AM to 8:00 AM	0	7	43	9	0	9	40	19	0	18	43	0	0	4	27	7	226	
8:00 AM to 8:15 AM	0	6	28	5	0	17	56	11	0	7	31	5	0	10	42	13	231	
8:15 AM to 8:30 AM	0	1	18	5	0	0	17	7	0	12	16	3	0	2	33	1	115	
8:30 AM to 8:45 AM	0	2	11	2	0	13	12	11	0	16	13	0	0	5	17	3	105	
8:45 AM to 9:00 AM	0	4	17	4	0	-9	7	8	0	9	18	1	0	0	9	2	70	

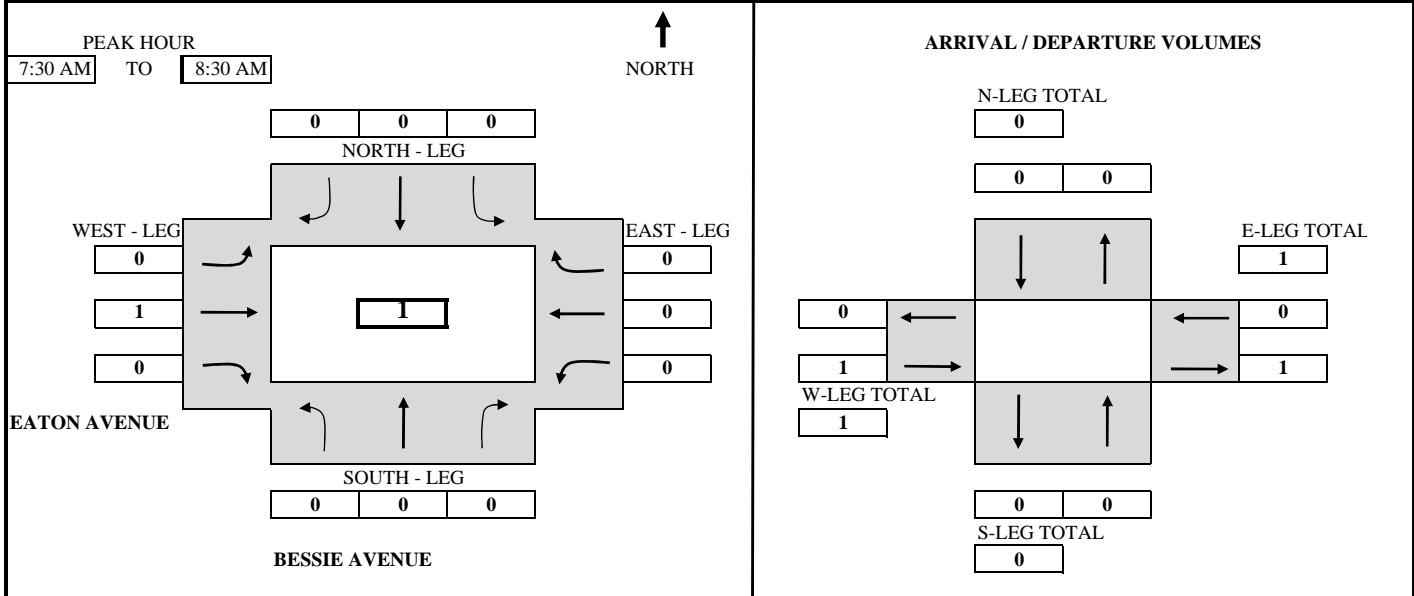
<b>HOURLY TOTALS</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 8:00 AM	0	14	86	27	1	18	75	31	0	34	87	3	0	6	58	9	449	
7:15 AM to 8:15 AM	0	19	106	32	1	35	123	41	0	39	106	6	0	15	92	22	637	
7:30 AM to 8:30 AM	0	19	112	34	0	33	129	45	0	44	114	9	0	17	116	22	694	
7:45 AM to 8:45 AM	0	16	100	21	0	39	125	48	0	53	103	8	0	21	119	24	677	
8:00 AM to 9:00 AM	0	13	74	16	0	21	92	37	0	44	78	9	0	17	101	19	521	

<b>PEAK HOUR SUMMARY</b>																		
TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR		
7:30 AM to 8:30 AM	0	19	112	34	0	33	129	45	0	44	114	9	0	17	116	22	694	
PHF BY MOVEMENT	0.00	0.68	0.65	0.57	0.00	0.49	0.58	0.59	0.00	0.61	0.66	0.45	0.00	0.43	0.69	0.42	OVERALL	
PHF BY APPROACH	0.70				0.62				0.68				0.60				0.75	
PEDESTRIAN																	35	
BICYCLE																	1	

# B.A.Y.M.E.T.R.I.C.S.

## BICYCLE MOVEMENT SUMMARY

PROJECT: TRAFFIC COUNTS IN TRACY SURVEY DATE: 9/23/2014 DAY: TUESDAY  
 N-S APPROACH: BESSIE AVENUE SURVEY TIME: 7:00 AM TO 9:00 AM  
 E-W APPROACH: EATON AVENUE JURISDICTION: TRACY FILE: 3409111-5AM



TIME	PERIOD	NB (SOUTH - LEG)			SB (NORTH - LEG)			EB (WEST - LEG)			WB (EAST - LEG)			TOTAL
		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	

SURVEY DATA															
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
7:30 AM	to	7:45 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
7:45 AM	to	8:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
8:00 AM	to	8:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
8:15 AM	to	8:30 AM	0	0	1	0	0	0	0	1	0	1	0	0	3
8:30 AM	to	8:45 AM	0	0	1	0	0	0	0	1	0	1	0	0	3
8:45 AM	to	9:00 AM	0	0	1	0	0	0	0	1	0	1	0	0	3

TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0

HOURLY TOTALS															
7:00 AM	to	8:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
7:15 AM	to	8:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:45 AM	to	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	to	9:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1

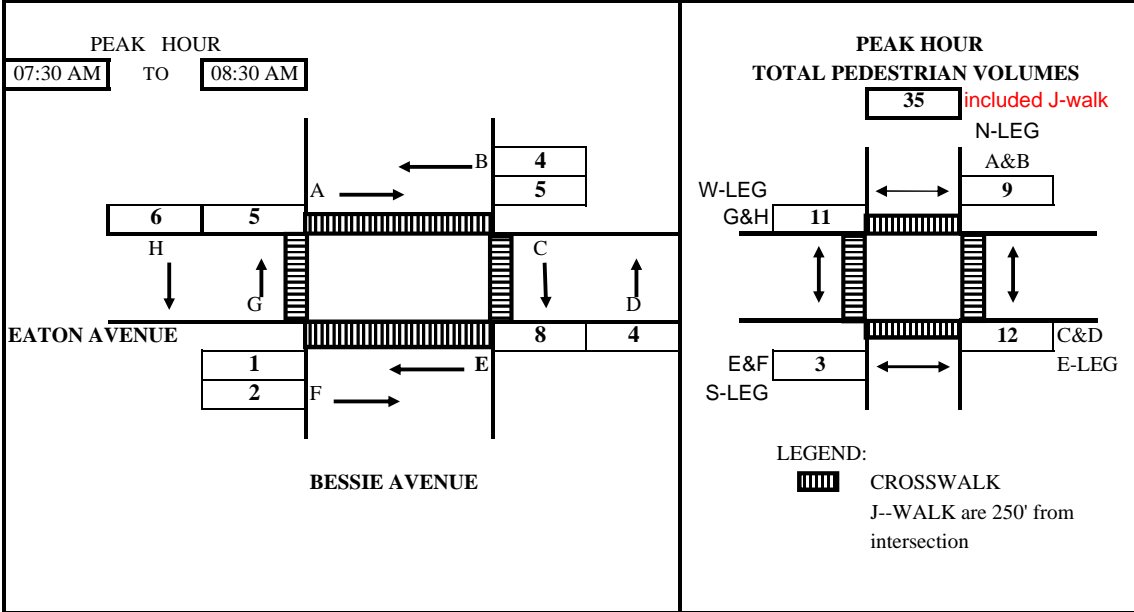
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

7:30 AM to 8:30 AM					
VOLUME BY APPROACH	NBT	SBT	EBT	WBT	TOTAL
BICYCLE	0	0	1	0	1

# B.A.Y.M.E.T.R.I.C.S.

## PEDESTRIAN MOVEMENT SUMMARY

<b>PROJECT:</b> TRAFFIC COUNTS IN TRACY		<b>SURVEY DATE:</b> 9/23/2014	
<b>N-S APPROACH:</b> BESSIE AVENUE		<b>DAY:</b> TUESDAY	
<b>E-W APPROACH:</b> EATON AVENUE		<b>JURISDICTION:</b> TRACY	
<b>SURVEY PERIOD:</b> 7:00 AM TO 9:00 AM		<b>FILE:</b> 3409111-5AM	



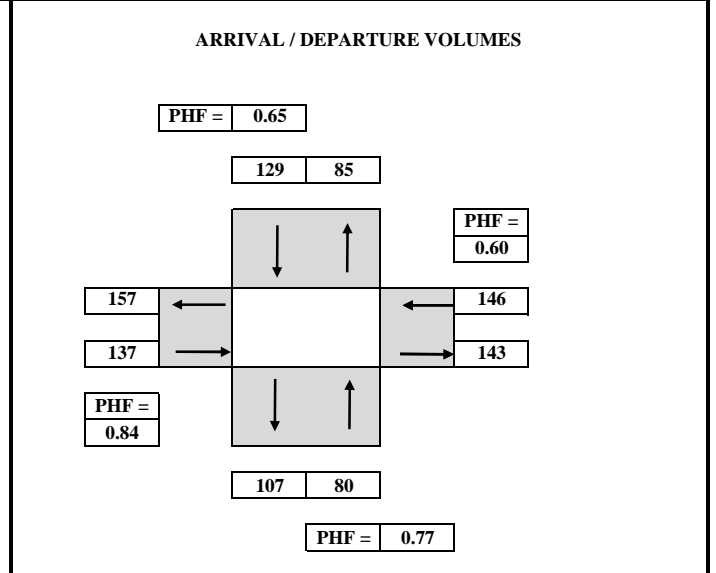
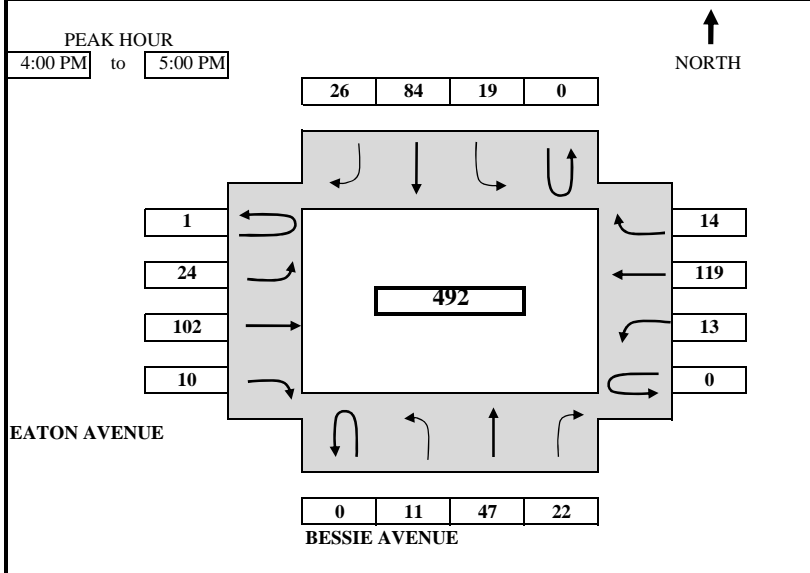
TIME PERIOD			NORTH X-WALK		EAST X-WALK		SOUTH X-WALK		WEST X-WALK		TOTAL
			A	B	C	D	E	F	G	H	
<b>SURVEY DATA</b>											
07:00 AM	---	07:15 AM	0	1	0	0	1	0	2	0	4
07:15 AM	---	07:30 AM	1	1	0	0	1	0	4	1	8
07:30 AM	---	07:45 AM	1	1	0	2	1	0	4	1	10
07:45 AM	---	08:00 AM	3	3	0	2	2	2	4	1	17
08:00 AM	---	08:15 AM	5	4	8	2	2	2	6	3	32
08:15 AM	---	08:30 AM	6	5	8	4	2	2	9	7	43
08:30 AM	---	08:45 AM	6	9	8	6	3	2	10	8	52
08:45 AM	---	09:00 AM	6	10	8	7	4	2	12	10	59
<b>TOTAL BY PERIOD</b>											
07:00 AM	---	07:15 AM	0	1	0	0	1	0	2	0	4
07:15 AM	---	07:30 AM	1	0	0	0	0	0	2	1	4
07:30 AM	---	07:45 AM	0	0	0	2	0	0	0	0	2
07:45 AM	---	08:00 AM	2	2	0	0	1	2	0	0	7
08:00 AM	---	08:15 AM	2	1	8	0	0	0	2	2	15
08:15 AM	---	08:30 AM	1	1	0	2	0	0	3	4	11
08:30 AM	---	08:45 AM	0	4	0	2	1	0	1	1	9
08:45 AM	---	09:00 AM	0	1	0	1	1	0	2	2	7
<b>HOURLY TOTALS</b>											
07:00 AM	---	08:00 AM	3	3	0	2	2	2	4	1	17
07:15 AM	---	08:15 AM	5	3	8	2	1	2	4	3	28
07:30 AM	---	08:30 AM	5	4	8	4	1	2	5	6	35
07:45 AM	---	08:45 AM	5	8	8	4	2	2	6	7	42
08:00 AM	---	09:00 AM	3	7	8	5	2	0	8	9	42
<i>Tel : (510) 232-1271</i>						<i>Fax : (510) 232-1272</i>					

7:30 AM to 8:30 AM						
<b>VOLUME BY LEG</b>	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL	
PEDESTRIAN	9	3	12	11	35	Included J-WALK

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	<b>TRAFFIC COUNTS IN TRACY</b>	<b>SURVEY DATE:</b>	<b>9/23/2014</b>	<b>DAY:</b>	<b>TUESDAY</b>
<b>N-S APPROACH:</b>	<b>BESSIE AVENUE</b>	<b>SURVEY TIME:</b>	<b>4:00 PM</b>	<b>TO</b>	<b>6:00 PM</b>
<b>E-W APPROACH:</b>	<b>EATON AVENUE</b>	<b>JURISDICTION:</b>	<b>TRACY</b>	<b>FILE:</b>	<b>3409111-5PM</b>



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL			
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT	
<b>SURVEY DATA</b>																				
4:00 PM	to	4:15 PM	5	15	5	8	28	14	1	13	25	1	3	53	5					176
4:15 PM	to	4:30 PM	10	28	13	12	50	17	1	17	43	2	6	74	8					281
4:30 PM	to	4:45 PM	11	40	17	16	67	21	1	20	69	6	11	97	13					389
4:45 PM	to	5:00 PM	11	47	22	19	84	26	1	24	102	10	13	119	14					492
5:00 PM	to	5:15 PM	12	61	27	25	101	37	1	26	131	14	20	146	16					617
5:15 PM	to	5:30 PM	13	74	32	29	119	44	1	30	159	17	23	171	19					731
5:30 PM	to	5:45 PM	14	93	39	33	132	48	1	37	175	19	24	189	20					824
5:45 PM	to	6:00 PM	14	113	42	38	154	53	1	43	197	21	26	205	20					927

<b>TOTAL BY PERIOD</b>																				
4:00 PM	to	4:15 PM	0	5	15	5	0	8	28	14	1	13	25	1	0	3	53	5	176	
4:15 PM	to	4:30 PM	0	5	13	8	0	4	22	3	0	4	18	1	0	3	21	3	105	
4:30 PM	to	4:45 PM	0	1	12	4	0	4	17	4	0	3	26	4	0	5	23	5	108	
4:45 PM	to	5:00 PM	0	0	7	5	0	3	17	5	0	4	33	4	0	2	22	1	103	
5:00 PM	to	5:15 PM	0	1	14	5	0	6	17	11	0	2	29	4	0	7	27	2	125	
5:15 PM	to	5:30 PM	0	1	13	5	0	4	18	7	0	4	28	3	0	3	25	3	114	
5:30 PM	to	5:45 PM	0	1	19	7	0	4	13	4	0	7	16	2	0	1	18	1	93	
5:45 PM	to	6:00 PM	0	0	20	3	0	5	22	5	0	6	22	2	0	2	16	0	103	

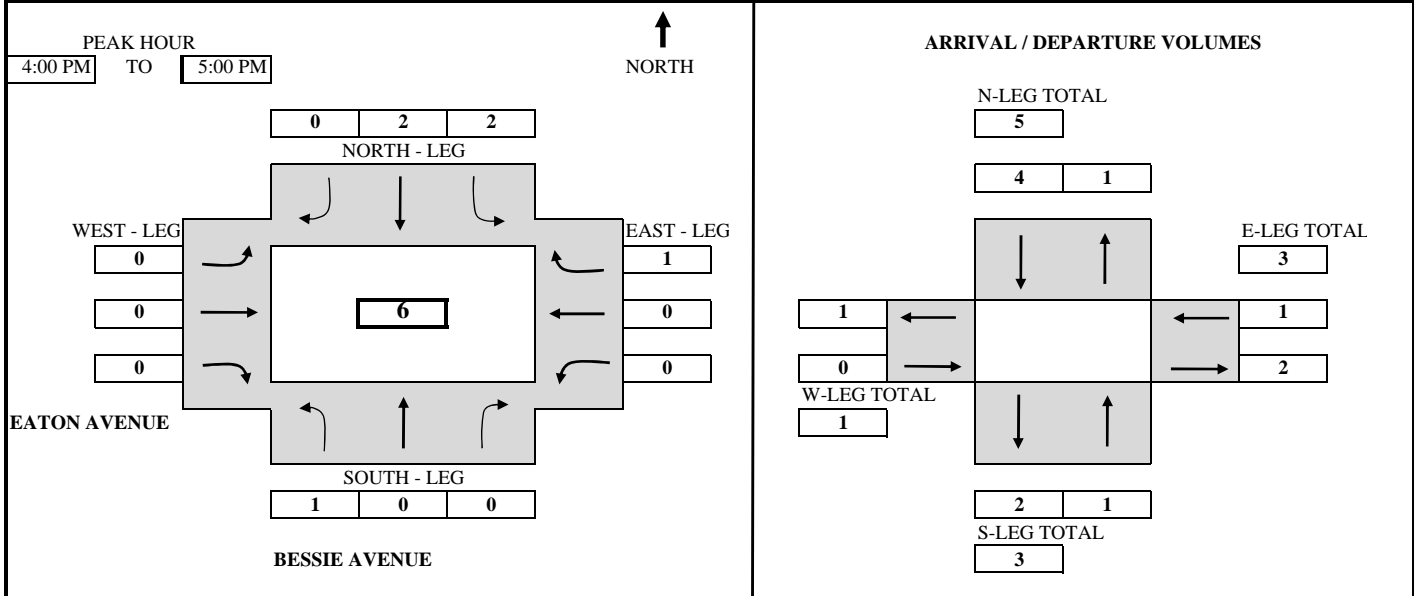
<b>HOURLY TOTALS</b>																				
4:00 PM	to	5:00 PM	0	11	47	22	0	19	84	26	1	24	102	10	0	13	119	14	492	
4:15 PM	to	5:15 PM	0	7	46	22	0	17	73	23	0	13	106	13	0	17	93	11	441	
4:30 PM	to	5:30 PM	0	3	46	19	0	17	69	27	0	13	116	15	0	17	97	11	450	
4:45 PM	to	5:45 PM	0	3	53	22	0	17	65	27	0	17	106	13	0	13	92	7	435	
5:00 PM	to	6:00 PM	0	3	66	20	0	19	70	27	0	19	95	11	0	13	86	6	435	

<b>PEAK HOUR SUMMARY</b>																				
4:00 PM	to	5:00 PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
			NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR		
		VOLUME	0	11	47	22	0	19	84	26	1	24	102	10	0	13	119	14	492	
		PHF BY MOVEMENT	0.00	0.55	0.78	0.69	0.00	0.59	0.75	0.46	0.25	0.46	0.77	0.63	0.00	0.65	0.56	0.70	OVERALL	
		PHF BY APPROACH	0.77				0.65				0.84				0.60				0.70	
		PEDESTRIAN																	8	
		BICYCLE																	6	

# B.A.Y.M.E.T.R.I.C.S.

## BICYCLE MOVEMENT SUMMARY

PROJECT: TRAFFIC COUNTS IN TRACY SURVEY DATE: 9/23/2014 DAY: TUESDAY  
 N-S APPROACH: BESSIE AVENUE SURVEY TIME: 4:00 PM TO 6:00 PM  
 E-W APPROACH: EATON AVENUE JURISDICTION: TRACY FILE: 3409111-5PM



TIME	PERIOD	NB (SOUTH - LEG)			SB (NORTH - LEG)			EB (WEST - LEG)			WB (EAST - LEG)			TOTAL
		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	

SURVEY DATA														
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	2	0	0	0	0	0	0	1
4:30 PM	to	4:45 PM	1	0	0	1	2	0	0	0	0	0	0	1
4:45 PM	to	5:00 PM	1	0	0	2	2	0	0	0	0	0	0	1
5:00 PM	to	5:15 PM	1	0	1	2	2	0	0	0	0	0	0	1
5:15 PM	to	5:30 PM	1	0	1	2	2	0	0	0	0	0	0	1
5:30 PM	to	5:45 PM	1	0	1	2	2	0	0	0	0	0	0	1
5:45 PM	to	6:00 PM	1	0	1	2	2	0	0	0	0	0	0	1

TOTAL BY PERIOD														
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	2	0	0	0	0	0	0	1
4:30 PM	to	4:45 PM	1	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	to	5:00 PM	0	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	to	5:15 PM	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0

HOURLY TOTALS														
4:00 PM	to	5:00 PM	1	0	0	2	2	0	0	0	0	0	0	1
4:15 PM	to	5:15 PM	1	0	1	2	2	0	0	0	0	0	0	1
4:30 PM	to	5:30 PM	1	0	1	2	0	0	0	0	0	0	0	4
4:45 PM	to	5:45 PM	0	0	1	1	0	0	0	0	0	0	0	2
5:00 PM	to	6:00 PM	0	0	1	0	0	0	0	0	0	0	0	1

TEL: (510) 232 - 1271

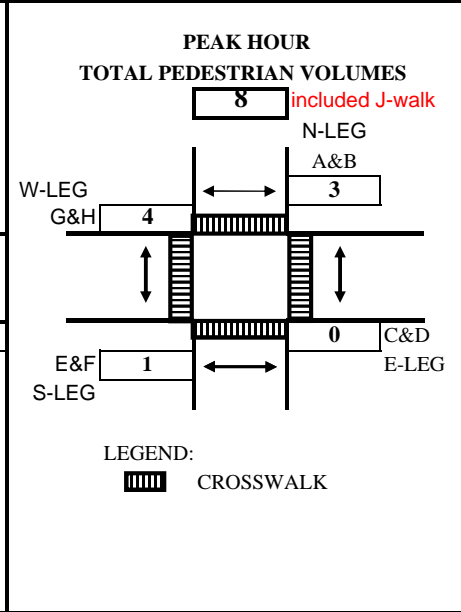
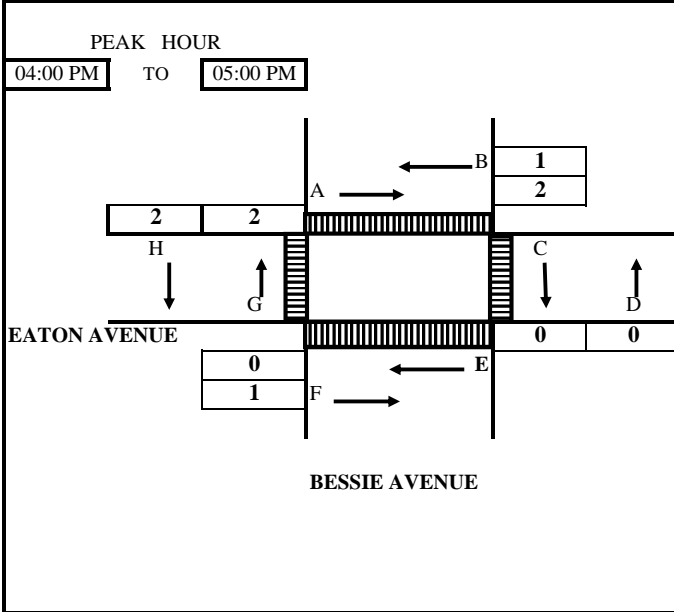
FAX: (510) 232 - 1272

4:00 PM to 5:00 PM					
VOLUME BY APPROACH	NBT	SBT	EBT	WBT	TOTAL
BICYCLE	1	4	0	1	6

# B.A.Y.M.E.T.R.I.C.S.

## PEDESTRIAN MOVEMENT SUMMARY

<b>PROJECT:</b> TRAFFIC COUNTS IN TRACY		<b>SURVEY DATE:</b> 9/23/2014	
<b>N-S APPROACH:</b> BESSIE AVENUE		<b>DAY:</b> TUESDAY	
<b>E-W APPROACH:</b> EATON AVENUE		<b>JURISDICTION:</b> TRACY	
<b>SURVEY PERIOD:</b> 4:00 PM TO 6:00 PM		<b>FILE:</b> 3409111-5PM	



TIME PERIOD		NORTH X-WALK		EAST X-WALK		SOUTH X-WALK		WEST X-WALK		TOTAL
From	To	A	B	C	D	E	F	G	H	

SURVEY DATA

04:00 PM	---	04:15 PM	0	1	0	0	0	0	0	0	1
04:15 PM	---	04:30 PM	2	1	0	0	0	0	0	2	5
04:30 PM	---	04:45 PM	2	1	0	0	0	0	2	2	7
04:45 PM	---	05:00 PM	2	1	0	0	0	1	2	2	8
05:00 PM	---	05:15 PM	2	1	1	0	0	1	3	4	12
05:15 PM	---	05:30 PM	3	2	1	0	1	1	3	4	15
05:30 PM	---	05:45 PM	5	3	1	1	2	2	3	5	22
05:45 PM	---	06:00 PM	6	3	1	1	2	2	4	5	24

TOTAL BY PERIOD

04:00 PM	---	04:15 PM	0	1	0	0	0	0	0	0	1
04:15 PM	---	04:30 PM	2	0	0	0	0	0	0	2	4
04:30 PM	---	04:45 PM	0	0	0	0	0	0	2	0	2
04:45 PM	---	05:00 PM	0	0	0	0	0	1	0	0	1
05:00 PM	---	05:15 PM	0	0	1	0	0	0	1	2	4
05:15 PM	---	05:30 PM	1	1	0	0	1	0	0	0	3
05:30 PM	---	05:45 PM	2	1	0	1	1	1	0	1	7
05:45 PM	---	06:00 PM	1	0	0	0	0	0	1	0	2

HOURLY TOTALS

04:00 PM	---	05:00 PM	2	1	0	0	0	1	2	2	8
04:15 PM	---	05:15 PM	2	0	1	0	0	1	3	4	11
04:30 PM	---	05:30 PM	1	1	1	0	1	1	3	2	10
04:45 PM	---	05:45 PM	3	2	1	1	2	2	1	3	15
05:00 PM	---	06:00 PM	4	2	1	1	2	1	2	3	16

Tel : (510) 232-1271

Fax : (510) 232-1272

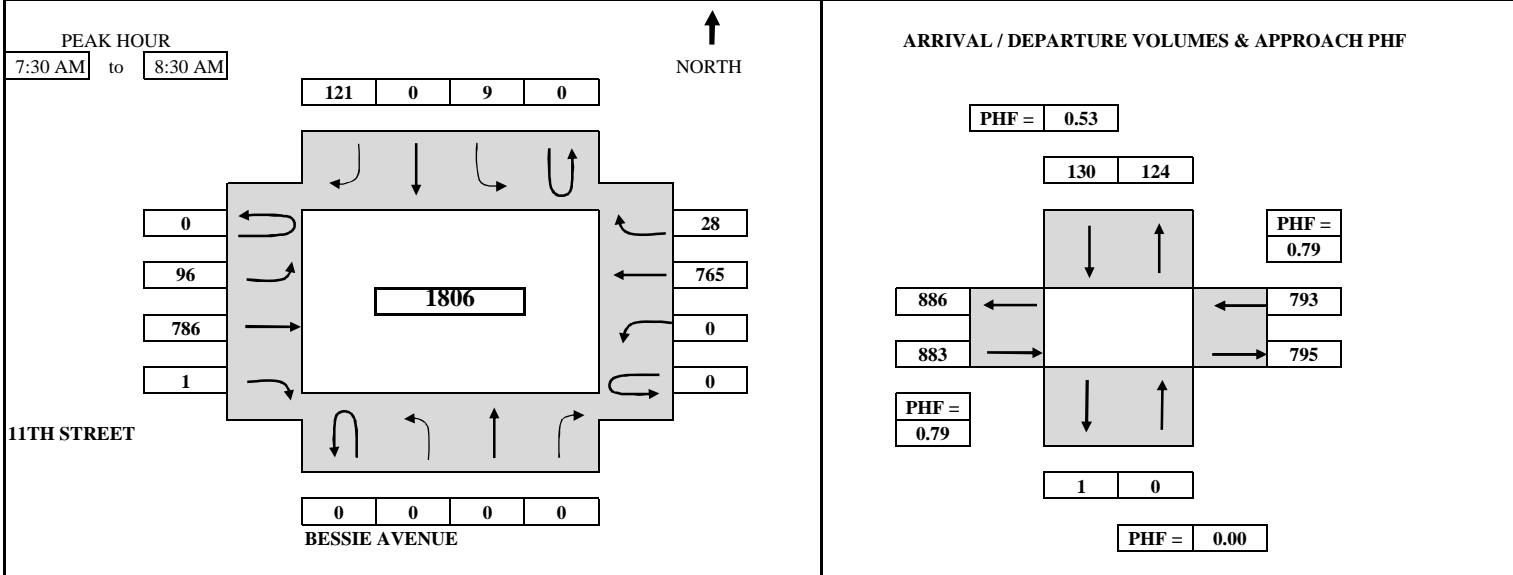
4:00 PM to 5:00 PM					
VOLUME BY LEG	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
PEDESTRIAN	3	1	0	4	8

Included J-WALK

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	BESSIE AVENUE	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	11TH STREET	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-6AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
7:00 AM to 7:15 AM					0	4			3	76	0			0	105	4			192
7:15 AM to 7:30 AM					0	19			15	206	0			0	234	10			484
7:30 AM to 7:45 AM					0	36			46	412	0			0	445	16			955
7:45 AM to 8:00 AM					3	69			84	654	0			0	685	27			1522
8:00 AM to 8:15 AM					7	126			95	843	0			0	859	35			1965
8:15 AM to 8:30 AM					9	140			111	992	1			0	999	38			2290
8:30 AM to 8:45 AM					12	148			123	1113	2			0	1136	45			2579
8:45 AM to 9:00 AM					15	157			136	1245	2			0	1286	55			2896

<b>TOTAL BY PERIOD</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 7:15 AM	0	0	0	0	0	0	0	4	0	3	76	0	0	0	105	4	192	
7:15 AM to 7:30 AM	0	0	0	0	0	0	15	0	0	12	130	0	0	0	129	6	292	
7:30 AM to 7:45 AM	0	0	0	0	0	0	17	0	0	31	206	0	0	0	211	6	471	
7:45 AM to 8:00 AM	0	0	0	0	0	3	0	33	0	38	242	0	0	0	240	11	567	
8:00 AM to 8:15 AM	0	0	0	0	0	4	0	57	0	11	189	0	0	0	174	8	443	
8:15 AM to 8:30 AM	0	0	0	0	0	2	0	14	0	16	149	1	0	0	140	3	325	
8:30 AM to 8:45 AM	0	0	0	0	0	3	0	8	0	12	121	1	0	0	137	7	289	
8:45 AM to 9:00 AM	0	0	0	0	0	3	0	9	0	13	132	0	0	0	150	10	317	

<b>HOURLY TOTALS</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 8:00 AM	0	0	0	0	0	3	0	69	0	84	654	0	0	0	685	27	1522	
7:15 AM to 8:15 AM	0	0	0	0	0	7	0	122	0	92	767	0	0	0	754	31	1773	
7:30 AM to 8:30 AM	0	0	0	0	0	9	0	121	0	96	786	1	0	0	765	28	1806	
7:45 AM to 8:45 AM	0	0	0	0	0	12	0	112	0	77	701	2	0	0	691	29	1624	
8:00 AM to 9:00 AM	0	0	0	0	0	12	0	88	0	52	591	2	0	0	601	28	1374	

<b>PEAK HOUR SUMMARY</b>																		
TIME PERIOD	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
7:30 AM to 8:30 AM	0	0	0	0	0	9	0	121	0	96	786	1	0	0	765	28	1806	
PHF BY MOVEMENT	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.53	0.00	0.63	0.81	0.25	0.00	0.00	0.80	0.64	OVERALL	
PHF BY APPROACH	0.00				0.53				0.79				0.79				0.80	

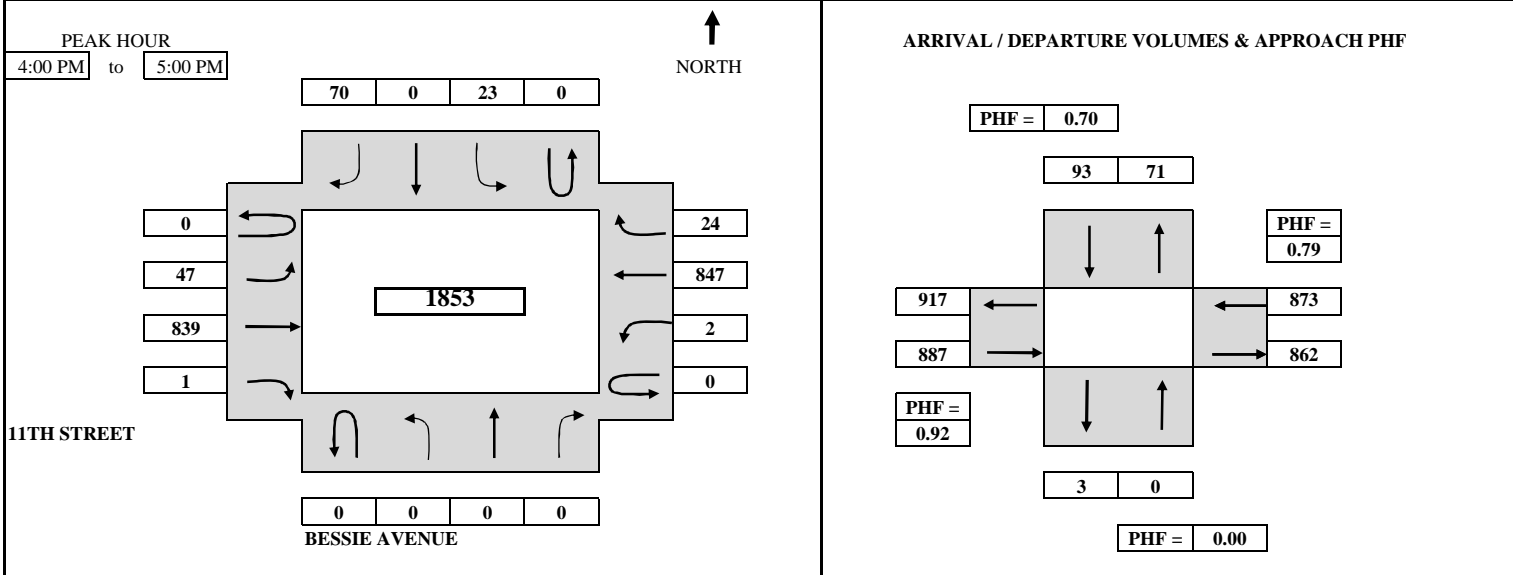
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	BESSIE AVENUE	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	11TH STREET	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-6PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU
<b>SURVEY DATA</b>																		
4:00 PM to 4:15 PM					8	25	11	210	0	1	268	6	529					
4:15 PM to 4:30 PM					14	37	24	411	0	2	459	16	963					
4:30 PM to 4:45 PM					20	57	34	613	0	2	663	23	1412					
4:45 PM to 5:00 PM					23	70	47	839	1	2	847	24	1853					
5:00 PM to 5:15 PM					30	82	58	1049	2	2	1117	26	2366					
5:15 PM to 5:30 PM					34	100	73	1242	2	2	1329	28	2810					
5:30 PM to 5:45 PM					38	117	92	1431	3	3	1524	31	3239					
5:45 PM to 6:00 PM					44	131	106	1649	3	3	1690	39	3665					

<b>TOTAL BY PERIOD</b>																		
4:00 PM to 4:15 PM	0	0	0	0	0	8	0	25	0	11	210	0	0	1	268	6	529	
4:15 PM to 4:30 PM	0	0	0	0	0	6	0	12	0	13	201	0	0	1	191	10	434	
4:30 PM to 4:45 PM	0	0	0	0	0	6	0	20	0	10	202	0	0	0	204	7	449	
4:45 PM to 5:00 PM	0	0	0	0	0	3	0	13	0	13	226	1	0	0	184	1	441	
5:00 PM to 5:15 PM	0	0	0	0	0	7	0	12	0	11	210	1	0	0	270	2	513	
5:15 PM to 5:30 PM	0	0	0	0	0	4	0	18	0	15	193	0	0	0	212	2	444	
5:30 PM to 5:45 PM	0	0	0	0	0	4	0	17	0	19	189	1	0	1	195	3	429	
5:45 PM to 6:00 PM	0	0	0	0	0	6	0	14	0	14	218	0	0	0	166	8	426	

<b>HOURLY TOTALS</b>																		
4:00 PM to 5:00 PM	0	0	0	0	0	23	0	70	0	47	839	1	0	2	847	24	1853	
4:15 PM to 5:15 PM	0	0	0	0	0	22	0	57	0	47	839	2	0	1	849	20	1837	
4:30 PM to 5:30 PM	0	0	0	0	0	20	0	63	0	49	831	2	0	0	870	12	1847	
4:45 PM to 5:45 PM	0	0	0	0	0	18	0	60	0	58	818	3	0	1	861	8	1827	
5:00 PM to 6:00 PM	0	0	0	0	0	21	0	61	0	59	810	2	0	1	843	15	1812	

<b>PEAK HOUR SUMMARY</b>																		
4:00 PM to 5:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
VOLUME	0	0	0	0	0	23	0	70	0	47	839	1	0	2	847	24	1853	
PHF BY MOVEMENT	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.70	0.00	0.90	0.93	0.25	0.00	0.50	0.79	0.60	OVERALL	
PHF BY APPROACH	0.00				0.70				0.92				0.79				0.88	

TEL: (510) 232 - 1271

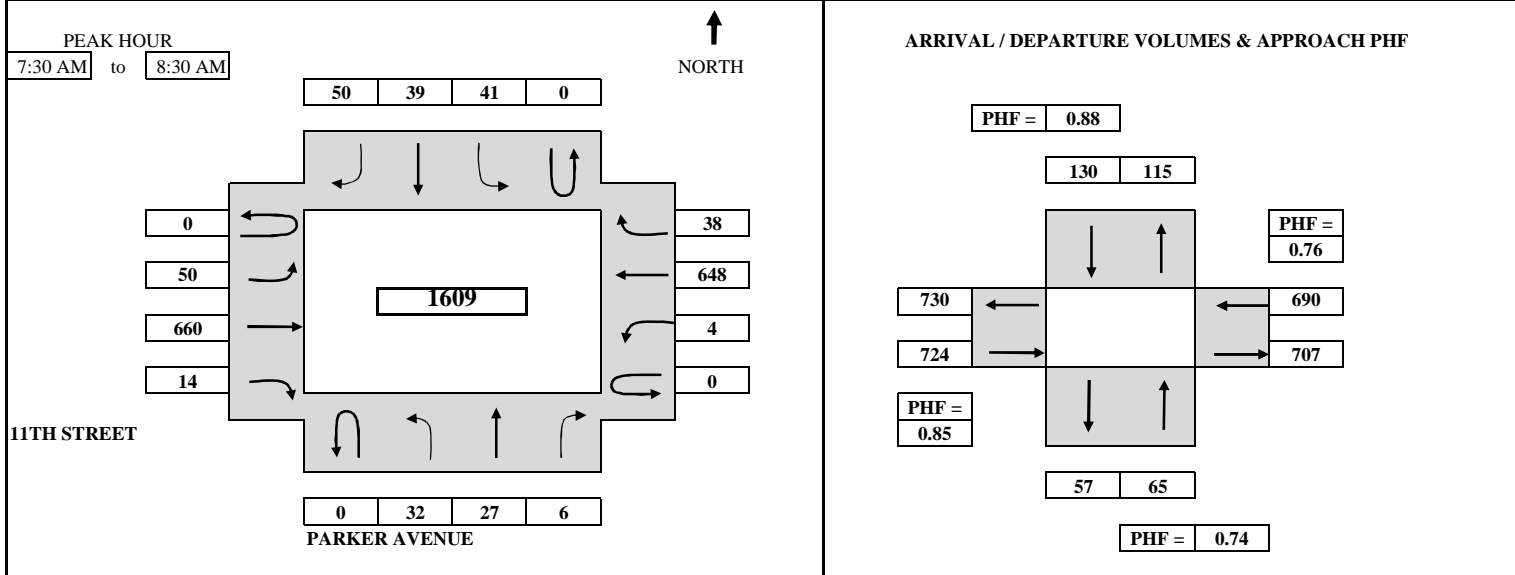
FAX: (510) 232 - 1272



# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	11TH STREET	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-9AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
7:00 AM to 7:15 AM			2	3	0	5	0	14	14	58	1	0	87	5					189
7:15 AM to 7:30 AM			7	6	2	12	7	20	20	162	2	2	186	12					438
7:30 AM to 7:45 AM			14	12	3	24	19	33	33	340	3	2	349	22					854
7:45 AM to 8:00 AM			23	18	6	31	27	51	51	532	6	2	563	34					1344
8:00 AM to 8:15 AM			33	29	7	45	38	62	62	690	11	4	720	43					1744
8:15 AM to 8:30 AM			39	33	8	53	46	70	70	822	16	6	834	50					2047
8:30 AM to 8:45 AM			41	40	9	69	56	79	79	935	18	7	957	54					2344
8:45 AM to 9:00 AM			74	45	11	82	60	87	87	1038	20	8	1085	58					2655

<b>TOTAL BY PERIOD</b>																			
7:00 AM to 7:15 AM	0	2	3	0	0	5	0	14	0	14	58	1	0	0	87	5			189
7:15 AM to 7:30 AM	0	5	3	2	0	7	7	6	0	6	104	1	0	2	99	7			249
7:30 AM to 7:45 AM	0	7	6	1	0	12	12	13	0	13	178	1	0	0	163	10			416
7:45 AM to 8:00 AM	0	9	6	3	0	7	8	18	0	18	192	3	0	0	214	12			490
8:00 AM to 8:15 AM	0	10	11	1	0	14	11	11	0	11	158	5	0	2	157	9			400
8:15 AM to 8:30 AM	0	6	4	1	0	8	8	8	0	8	132	5	0	2	114	7			303
8:30 AM to 8:45 AM	0	2	7	1	0	16	10	9	0	9	113	2	0	1	123	4			297
8:45 AM to 9:00 AM	0	33	5	2	0	13	4	8	0	8	103	2	0	1	128	4			311

<b>HOURLY TOTALS</b>																			
7:00 AM to 8:00 AM	0	23	18	6	0	31	27	51	0	51	532	6	0	2	563	34			1344
7:15 AM to 8:15 AM	0	31	26	7	0	40	38	48	0	48	632	10	0	4	633	38			1555
7:30 AM to 8:30 AM	0	32	27	6	0	41	39	50	0	50	660	14	0	4	648	38			1609
7:45 AM to 8:45 AM	0	27	28	6	0	45	37	46	0	46	595	15	0	5	608	32			1490
8:00 AM to 9:00 AM	0	51	27	5	0	51	33	36	0	36	506	14	0	6	522	24			1311

<b>PEAK HOUR SUMMARY</b>																		
7:30 AM to 8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR		TOTAL
VOLUME	0	32	27	6	0	41	39	50	0	50	660	14	0	4	648	38		1609
PHF BY MOVEMENT	0.00	0.80	0.61	0.50	0.00	0.73	0.81	0.69	0.00	0.69	0.86	0.70	0.00	0.50	0.76	0.79		OVERALL
PHF BY APPROACH	0.74				0.88				0.85				0.76				0.82	

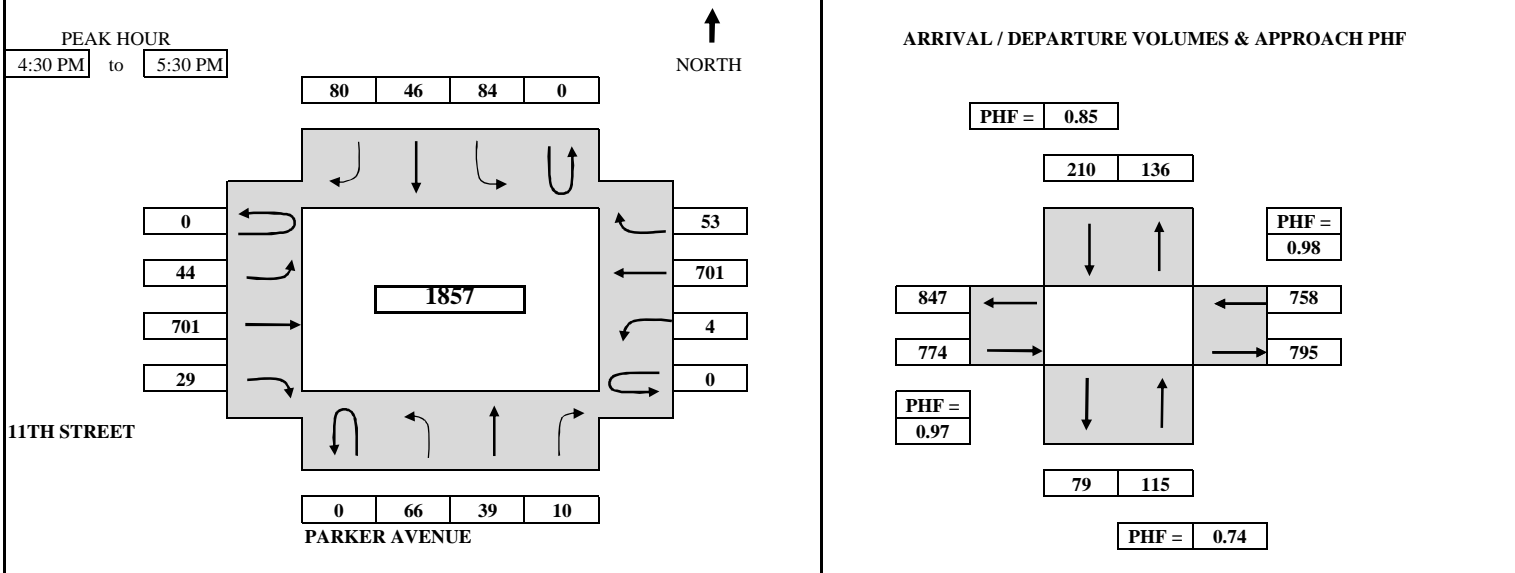
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	11TH STREET	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-9PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
4:00 PM to 4:15 PM			18	9	2	30	12	23	4	184	4	2	211	10					509
4:15 PM to 4:30 PM			41	19	3	44	20	32	14	364	9	3	349	18					916
4:30 PM to 4:45 PM			49	28	5	59	30	51	22	537	15	3	515	29					1343
4:45 PM to 5:00 PM			64	40	10	80	45	67	29	722	23	4	697	40					1821
5:00 PM to 5:15 PM			90	51	12	104	58	92	39	892	30	5	876	54					2303
5:15 PM to 5:30 PM			107	58	13	128	66	112	58	1065	38	7	1050	71					2773
5:30 PM to 5:45 PM			118	64	13	147	75	120	70	1230	47	9	1217	85					3195
5:45 PM to 6:00 PM			126	70	14	155	90	134	86	1400	54	11	1356	98					3594

<b>TOTAL BY PERIOD</b>																			
4:00 PM to 4:15 PM	0	18	9	2	0	30	12	23	0	4	184	4	0	2	211	10			509
4:15 PM to 4:30 PM	0	23	10	1	0	14	8	9	0	10	180	5	0	1	138	8			407
4:30 PM to 4:45 PM	0	8	9	2	0	15	10	19	0	8	173	6	0	0	166	11			427
4:45 PM to 5:00 PM	0	15	12	5	0	21	15	16	0	7	185	8	0	1	182	11			478
5:00 PM to 5:15 PM	0	26	11	2	0	24	13	25	0	10	170	7	0	1	179	14			482
5:15 PM to 5:30 PM	0	17	7	1	0	24	8	20	0	19	173	8	0	2	174	17			470
5:30 PM to 5:45 PM	0	11	6	0	0	19	9	8	0	12	165	9	0	2	167	14			422
5:45 PM to 6:00 PM	0	8	6	1	0	8	15	14	0	16	170	7	0	2	139	13			399

<b>HOURLY TOTALS</b>																			
4:00 PM to 5:00 PM	0	64	40	10	0	80	45	67	0	29	722	23	0	4	697	40			1821
4:15 PM to 5:15 PM	0	72	42	10	0	74	46	69	0	35	708	26	0	3	665	44			1794
4:30 PM to 5:30 PM	0	66	39	10	0	84	46	80	0	44	701	29	0	4	701	53			1857
4:45 PM to 5:45 PM	0	69	36	8	0	88	45	69	0	48	693	32	0	6	702	56			1852
5:00 PM to 6:00 PM	0	62	30	4	0	75	45	67	0	57	678	31	0	7	659	58			1773

<b>PEAK HOUR SUMMARY</b>																			
4:30 PM to 5:30 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR			TOTAL
VOLUME	0	66	39	10	0	84	46	80	0	44	701	29	0	4	701	53			1857
PHF BY MOVEMENT	0.00	0.63	0.81	0.50	0.00	0.88	0.77	0.80	0.00	0.58	0.95	0.91	0.00	0.50	0.96	0.78			OVERALL
PHF BY APPROACH	0.74				0.85				0.97				0.98						0.96

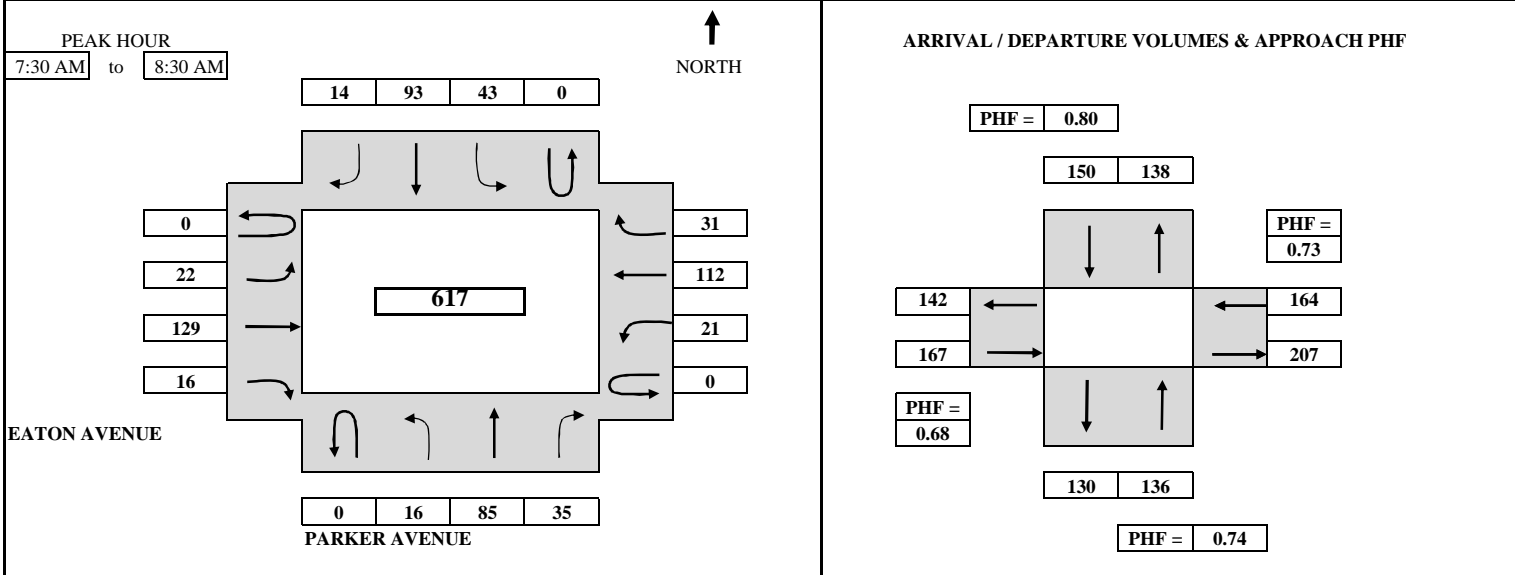
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	EATON AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-1AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU
<b>SURVEY DATA</b>																		
7:00 AM to 7:15 AM			1	11	4		4	12	1		1	10	0		0	5	0	<b>49</b>
7:15 AM to 7:30 AM			5	18	8		8	33	1		2	23	0		2	8	2	<b>110</b>
7:30 AM to 7:45 AM			6	35	16		14	54	4		4	52	1		9	22	4	<b>221</b>
7:45 AM to 8:00 AM			10	52	28		25	86	8		14	97	7		15	44	11	<b>397</b>
8:00 AM to 8:15 AM			16	81	39		45	107	12		18	132	13		17	85	24	<b>589</b>
8:15 AM to 8:30 AM			21	103	43		51	126	15		24	152	16		23	120	33	<b>727</b>
8:30 AM to 8:45 AM			25	114	47		53	139	15		29	157	22		30	143	38	<b>812</b>
8:45 AM to 9:00 AM			27	126	49		53	155	15		31	165	24		31	152	40	<b>868</b>

<b>TOTAL BY PERIOD</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 7:15 AM	0	1	11	4	0	4	12	1	0	1	10	0	0	0	5	0	<b>49</b>	
7:15 AM to 7:30 AM	0	4	7	4	0	4	21	0	0	1	13	0	0	2	3	2	<b>61</b>	
7:30 AM to 7:45 AM	0	1	17	8	0	6	21	3	0	2	29	1	0	7	14	2	<b>111</b>	
7:45 AM to 8:00 AM	0	4	17	12	0	11	32	4	0	10	45	6	0	6	22	7	<b>176</b>	
8:00 AM to 8:15 AM	0	6	29	11	0	20	21	4	0	4	35	6	0	2	41	13	<b>192</b>	
8:15 AM to 8:30 AM	0	5	22	4	0	6	19	3	0	6	20	3	0	6	35	9	<b>138</b>	
8:30 AM to 8:45 AM	0	4	11	4	0	2	13	0	0	5	5	6	0	7	23	5	<b>85</b>	
8:45 AM to 9:00 AM	0	2	12	2	0	0	16	0	0	2	8	2	0	1	9	2	<b>56</b>	

<b>HOURLY TOTALS</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 8:00 AM	0	10	52	28	0	25	86	8	0	14	97	7	0	15	44	11	<b>397</b>	
7:15 AM to 8:15 AM	0	15	70	35	0	41	95	11	0	17	122	13	0	17	80	24	<b>540</b>	
7:30 AM to 8:30 AM	0	16	85	35	0	43	93	14	0	22	129	16	0	21	112	31	<b>617</b>	
7:45 AM to 8:45 AM	0	19	79	31	0	39	85	11	0	25	105	21	0	21	121	34	<b>591</b>	
8:00 AM to 9:00 AM	0	17	74	21	0	28	69	7	0	17	68	17	0	16	108	29	<b>471</b>	

<b>PEAK HOUR SUMMARY</b>																		
TIME PERIOD	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
7:30 AM to 8:30 AM	0	16	85	35	0	43	93	14	0	22	129	16	0	21	112	31	<b>617</b>	
PHF BY MOVEMENT	0.00	0.67	0.73	0.73	0.00	0.54	0.73	0.88	0.00	0.55	0.72	0.67	0.00	0.75	0.68	0.60	<b>OVERALL</b>	
PHF BY APPROACH	0.74				0.80				0.68				0.73				0.80	

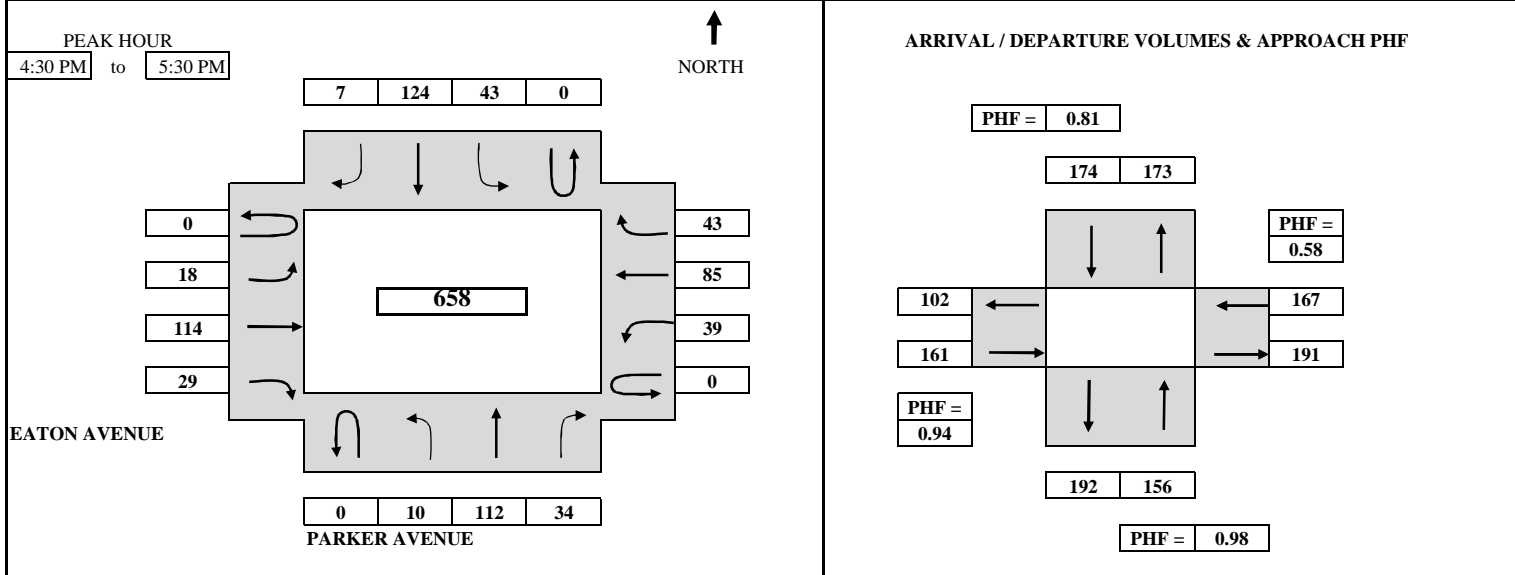
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	41905	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	EATON AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-1PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
4:00 PM to 4:15 PM			7	15	3		5	39	3		5	30	5		18	43	15		188
4:15 PM to 4:30 PM			11	33	12		12	61	6		7	53	8		20	57	19		299
4:30 PM to 4:45 PM			16	58	18		20	86	9		9	80	13		26	74	21		430
4:45 PM to 5:00 PM			17	86	29		38	120	11		14	111	19		31	88	30		594
5:00 PM to 5:15 PM			18	119	35		44	155	13		20	137	29		50	117	54		791
5:15 PM to 5:30 PM			21	145	46		55	185	13		25	167	37		59	142	62		957
5:30 PM to 5:45 PM			22	174	51		60	204	14		30	187	44		63	157	71		1077
5:45 PM to 6:00 PM			22	195	60		75	234	17		35	215	45		71	172	80		1221

<b>TOTAL BY PERIOD</b>																			
4:00 PM to 4:15 PM	0	7	15	3	0	5	39	3	0	5	30	5	0	18	43	15			188
4:15 PM to 4:30 PM	0	4	18	9	0	7	22	3	0	2	23	3	0	2	14	4			111
4:30 PM to 4:45 PM	0	5	25	6	0	8	25	3	0	2	27	5	0	6	17	2			131
4:45 PM to 5:00 PM	0	1	28	11	0	18	34	2	0	5	31	6	0	5	14	9			164
5:00 PM to 5:15 PM	0	1	33	6	0	6	35	2	0	6	26	10	0	19	29	24			197
5:15 PM to 5:30 PM	0	3	26	11	0	11	30	0	0	5	30	8	0	9	25	8			166
5:30 PM to 5:45 PM	0	1	29	5	0	5	19	1	0	5	20	7	0	4	15	9			120
5:45 PM to 6:00 PM	0	0	21	9	0	15	30	3	0	5	28	1	0	8	15	9			144

<b>HOURLY TOTALS</b>																			
4:00 PM to 5:00 PM	0	17	86	29	0	38	120	11	0	14	111	19	0	31	88	30			594
4:15 PM to 5:15 PM	0	11	104	32	0	39	116	10	0	15	107	24	0	32	74	39			603
4:30 PM to 5:30 PM	0	10	112	34	0	43	124	7	0	18	114	29	0	39	85	43			658
4:45 PM to 5:45 PM	0	6	116	33	0	40	118	5	0	21	107	31	0	37	83	50			647
5:00 PM to 6:00 PM	0	5	109	31	0	37	114	6	0	21	104	26	0	40	84	50			627

<b>PEAK HOUR SUMMARY</b>																			
4:30 PM to 5:30 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR			TOTAL
VOLUME	0	10	112	34	0	43	124	7	0	18	114	29	0	39	85	43			658
PHF BY MOVEMENT	0.00	0.50	0.85	0.77	0.00	0.60	0.89	0.58	0.00	0.75	0.92	0.73	0.00	0.51	0.73	0.45			OVERALL
PHF BY APPROACH	0.98				0.81				0.94				0.58						0.84

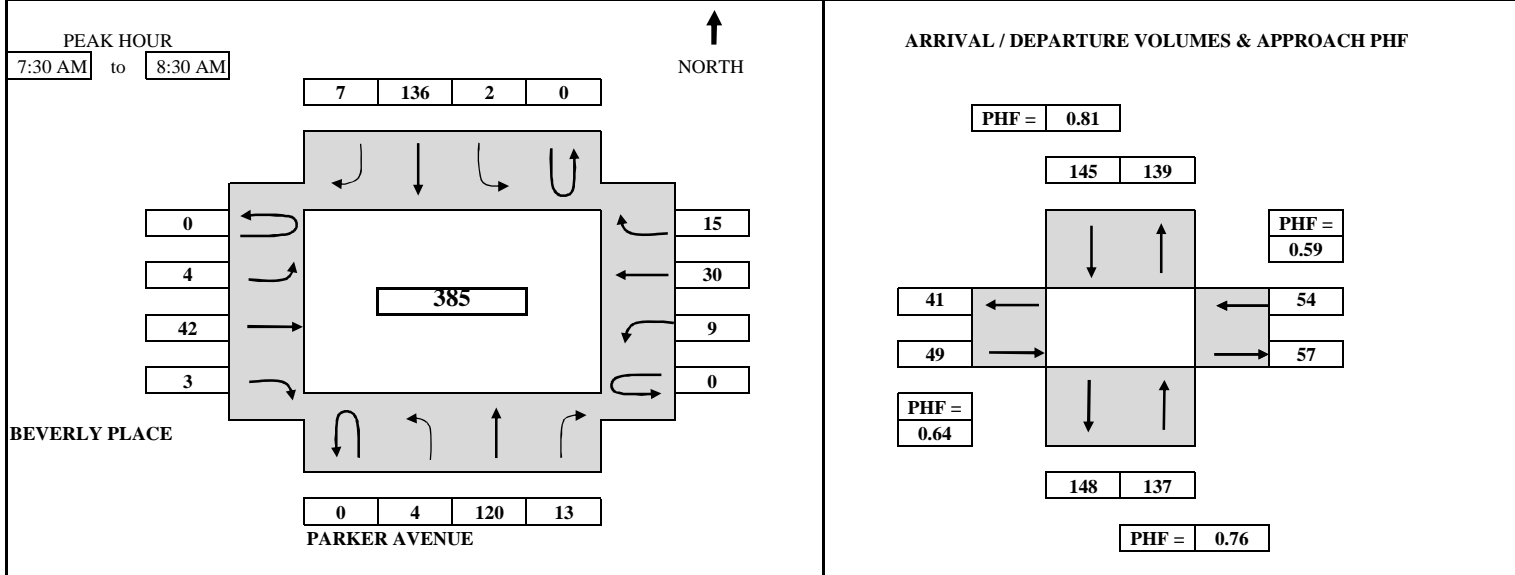
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	BEVERLY PLACE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-3AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
7:00 AM	to	7:15 AM	1	9	2		1	15	1		0	2	2		0	2	1		36
7:15 AM	to	7:30 AM	1	19	3		1	36	1		1	3	3		3	3	5		79
7:30 AM	to	7:45 AM	2	36	6		1	64	2		2	11	4		4	5	10		147
7:45 AM	to	8:00 AM	2	63	13		2	107	3		3	28	5		6	18	18		268
8:00 AM	to	8:15 AM	4	105	14		2	144	6		3	39	6		12	30	20		385
8:15 AM	to	8:30 AM	5	139	16		3	172	8		5	45	6		12	33	20		464
8:30 AM	to	8:45 AM	5	161	16		4	186	8		5	46	8		12	34	22		507
8:45 AM	to	9:00 AM	5	177	17		4	201	8		6	47	9		12	36	23		545
<b>TOTAL BY PERIOD</b>																			
7:00 AM	to	7:15 AM	0	1	9	2	0	1	15	1	0	0	2	2	0	0	2	1	36
7:15 AM	to	7:30 AM	0	0	10	1	0	0	21	0	0	1	1	1	0	3	1	4	43
7:30 AM	to	7:45 AM	0	1	17	3	0	0	28	1	0	1	8	1	0	1	2	5	68
7:45 AM	to	8:00 AM	0	0	27	7	0	1	43	1	0	1	17	1	0	2	13	8	121
8:00 AM	to	8:15 AM	0	2	42	1	0	0	37	3	0	0	11	1	0	6	12	2	117
8:15 AM	to	8:30 AM	0	1	34	2	0	1	28	2	0	2	6	0	0	0	3	0	79
8:30 AM	to	8:45 AM	0	0	22	0	0	1	14	0	0	0	1	2	0	0	1	2	43
8:45 AM	to	9:00 AM	0	0	16	1	0	0	15	0	0	1	1	1	0	0	2	1	38
<b>HOURLY TOTALS</b>																			
7:00 AM	to	8:00 AM	0	2	63	13	0	2	107	3	0	3	28	5	0	6	18	18	268
7:15 AM	to	8:15 AM	0	3	96	12	0	1	129	5	0	3	37	4	0	12	28	19	349
7:30 AM	to	8:30 AM	0	4	120	13	0	2	136	7	0	4	42	3	0	9	30	15	385
7:45 AM	to	8:45 AM	0	3	125	10	0	3	122	6	0	3	35	4	0	8	29	12	360
8:00 AM	to	9:00 AM	0	3	114	4	0	2	94	5	0	3	19	4	0	6	18	5	277
<b>PEAK HOUR SUMMARY</b>																			
7:30 AM	to	8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME			0	4	120	13	0	2	136	7	0	4	42	3	0	9	30	15	385
PHF BY MOVEMENT			0.00	0.50	0.71	0.46	0.00	0.50	0.79	0.58	0.00	0.50	0.62	0.75	0.00	0.38	0.58	0.47	OVERALL
PHF BY APPROACH			0.76				0.81				0.64				0.59				0.80

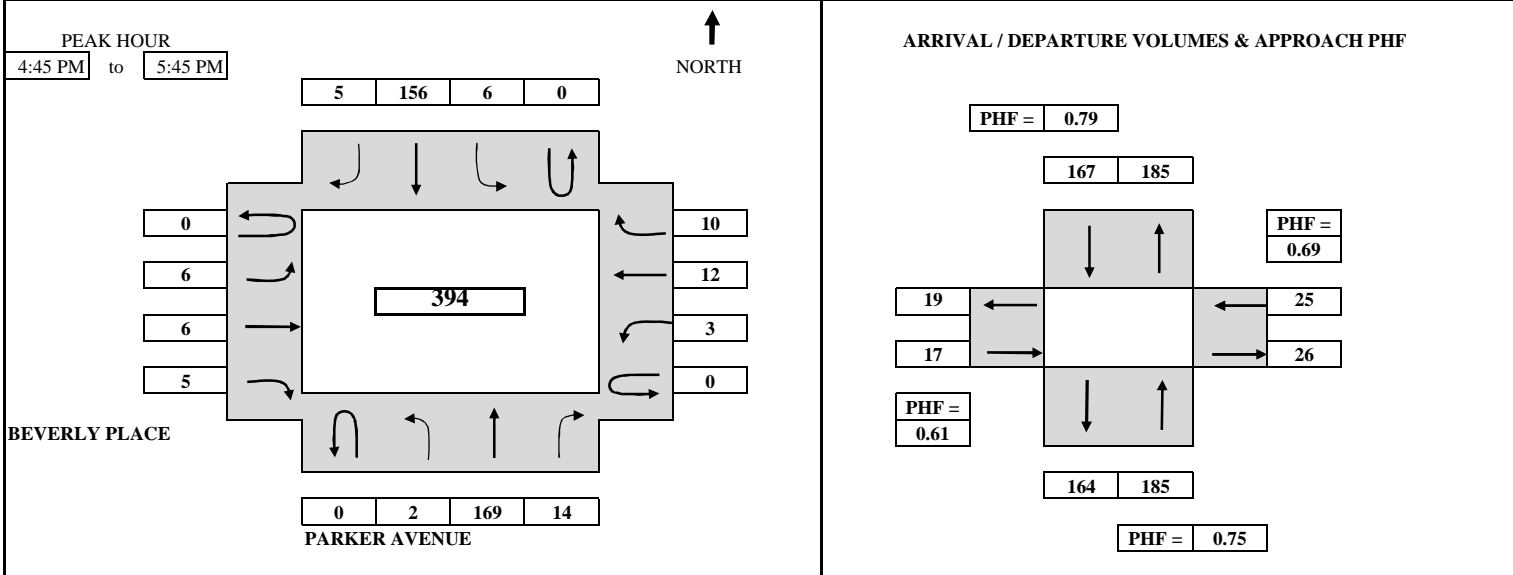
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	BEVERLY PLACE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-3PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL			
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT	
<b>SURVEY DATA</b>																				
4:00 PM	to	4:15 PM	0	29	7	2	34	2	3	3	5	7	12	5					109	
4:15 PM	to	4:30 PM	0	54	8	5	64	2	4	5	7	8	15	8					180	
4:30 PM	to	4:45 PM	1	80	10	8	100	2	5	6	8	9	15	11					255	
4:45 PM	to	5:00 PM	1	117	13	10	151	2	6	7	9	10	17	11					354	
5:00 PM	to	5:15 PM	2	175	16	10	193	7	7	8	10	11	22	14					475	
5:15 PM	to	5:30 PM	2	210	22	11	231	7	10	11	11	12	26	18					571	
5:30 PM	to	5:45 PM	3	249	24	14	256	7	11	12	13	12	27	21					649	
5:45 PM	to	6:00 PM	4	283	24	15	299	7	12	14	15	14	27	24					738	
<b>TOTAL BY PERIOD</b>																				
4:00 PM	to	4:15 PM	0	0	29	7	0	2	34	2	0	3	3	5	0	7	12	5	109	
4:15 PM	to	4:30 PM	0	0	25	1	0	3	30	0	0	1	2	2	0	1	3	3	71	
4:30 PM	to	4:45 PM	0	1	26	2	0	3	36	0	0	1	1	1	0	1	0	3	75	
4:45 PM	to	5:00 PM	0	0	37	3	0	2	51	0	0	1	1	1	0	1	2	0	99	
5:00 PM	to	5:15 PM	0	1	58	3	0	0	42	5	0	1	1	1	0	1	5	3	121	
5:15 PM	to	5:30 PM	0	0	35	6	0	1	38	0	0	3	3	1	0	1	4	4	96	
5:30 PM	to	5:45 PM	0	1	39	2	0	3	25	0	0	1	1	2	0	0	1	3	78	
5:45 PM	to	6:00 PM	0	1	34	0	0	1	43	0	0	1	2	2	0	2	0	3	89	
<b>HOURLY TOTALS</b>																				
4:00 PM	to	5:00 PM	0	1	117	13	0	10	151	2	0	6	7	9	0	10	17	11	354	
4:15 PM	to	5:15 PM	0	2	146	9	0	8	159	5	0	4	5	5	0	4	10	9	366	
4:30 PM	to	5:30 PM	0	2	156	14	0	6	167	5	0	6	6	4	0	4	11	10	391	
4:45 PM	to	5:45 PM	0	2	169	14	0	6	156	5	0	6	6	5	0	3	12	10	394	
5:00 PM	to	6:00 PM	0	3	166	11	0	5	148	5	0	6	7	6	0	4	10	13	384	
<b>PEAK HOUR SUMMARY</b>																				
4:45 PM	to	5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
			0	2	169	14	0	6	156	5	0	6	6	5	0	3	12	10		394
PHF BY MOVEMENT			0.00	0.50	0.73	0.58	0.00	0.50	0.76	0.25	0.00	0.50	0.50	0.63	0.00	0.75	0.60	0.63		OVERALL
PHF BY APPROACH			0.75				0.79				0.61				0.69				0.81	

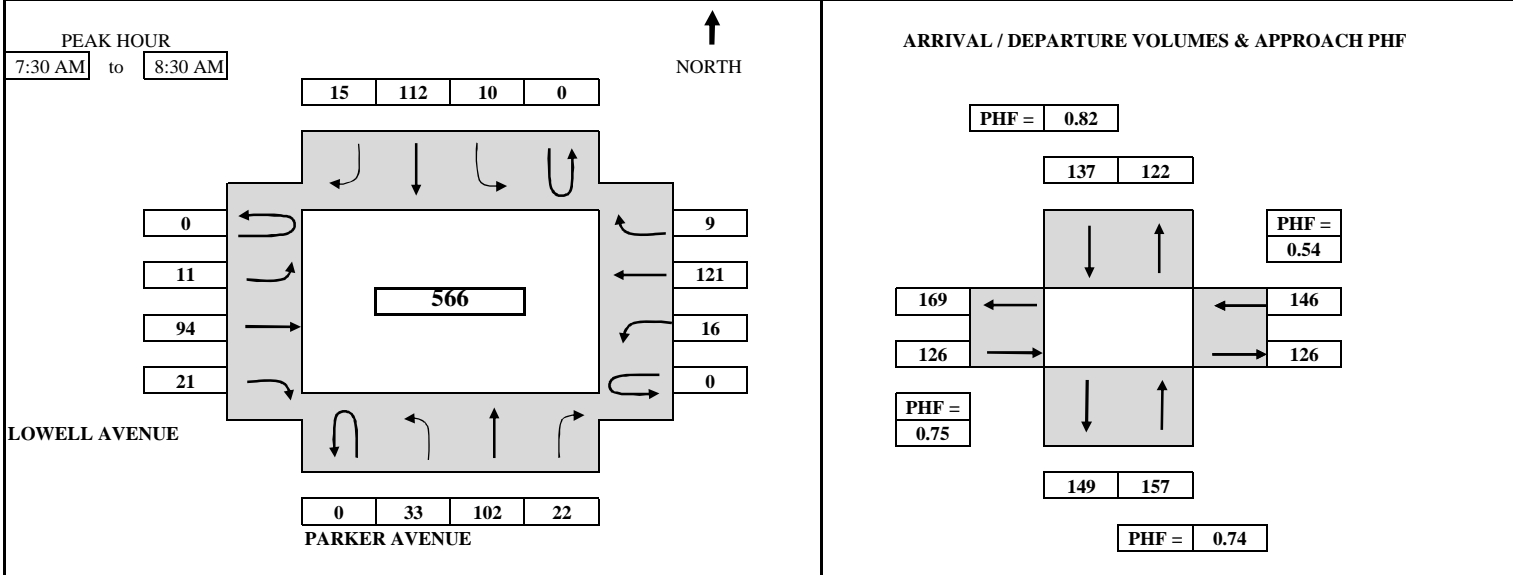
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	7:00 AM	<b>TO</b>	9:00 AM
<b>E-W APPROACH:</b>	LOWELL AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-4AM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
7:00 AM to 7:15 AM			2	8	0	0	11	0	2	6	3	2	2	2					38
7:15 AM to 7:30 AM			6	22	0	1	25	2	3	15	5	4	11	3					97
7:30 AM to 7:45 AM			13	36	4	6	52	7	6	48	8	6	41	5					232
7:45 AM to 8:00 AM			25	62	6	10	87	10	8	81	15	11	100	9					424
8:00 AM to 8:15 AM			33	96	17	11	120	15	12	92	22	19	120	10					567
8:15 AM to 8:30 AM			39	124	22	11	137	17	14	109	26	20	132	12					663
8:30 AM to 8:45 AM			43	143	25	11	149	19	18	117	27	23	142	13					730
8:45 AM to 9:00 AM			43	161	26	11	161	21	19	125	31	25	154	13					790

<b>TOTAL BY PERIOD</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 7:15 AM	0	2	8	0	0	0	11	0	0	2	6	3	0	2	2	2	38	
7:15 AM to 7:30 AM	0	4	14	0	0	1	14	2	0	1	9	2	0	2	9	1	59	
7:30 AM to 7:45 AM	0	7	14	4	0	5	27	5	0	3	33	3	0	2	30	2	135	
7:45 AM to 8:00 AM	0	12	26	2	0	4	35	3	0	2	33	7	0	5	59	4	192	
8:00 AM to 8:15 AM	0	8	34	11	0	1	33	5	0	4	11	7	0	8	20	1	143	
8:15 AM to 8:30 AM	0	6	28	5	0	0	17	2	0	2	17	4	0	1	12	2	96	
8:30 AM to 8:45 AM	0	4	19	3	0	0	12	2	0	4	8	1	0	3	10	1	67	
8:45 AM to 9:00 AM	0	0	18	1	0	0	12	2	0	1	8	4	0	2	12	0	60	

<b>HOURLY TOTALS</b>																		
TIME PERIOD	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL	
7:00 AM to 8:00 AM	0	25	62	6	0	10	87	10	0	8	81	15	0	11	100	9	424	
7:15 AM to 8:15 AM	0	31	88	17	0	11	109	15	0	10	86	19	0	17	118	8	529	
7:30 AM to 8:30 AM	0	33	102	22	0	10	112	15	0	11	94	21	0	16	121	9	566	
7:45 AM to 8:45 AM	0	30	107	21	0	5	97	12	0	12	69	19	0	17	101	8	498	
8:00 AM to 9:00 AM	0	18	99	20	0	1	74	11	0	11	44	16	0	14	54	4	366	

<b>PEAK HOUR SUMMARY</b>																		
TIME PERIOD	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
7:30 AM to 8:30 AM	0	33	102	22	0	10	112	15	0	11	94	21	0	16	121	9	566	
PHF BY MOVEMENT	0.00	0.69	0.75	0.50	0.00	0.50	0.80	0.75	0.00	0.69	0.71	0.75	0.00	0.50	0.51	0.56	OVERALL	
PHF BY APPROACH	0.74				0.82				0.75				0.54				0.74	

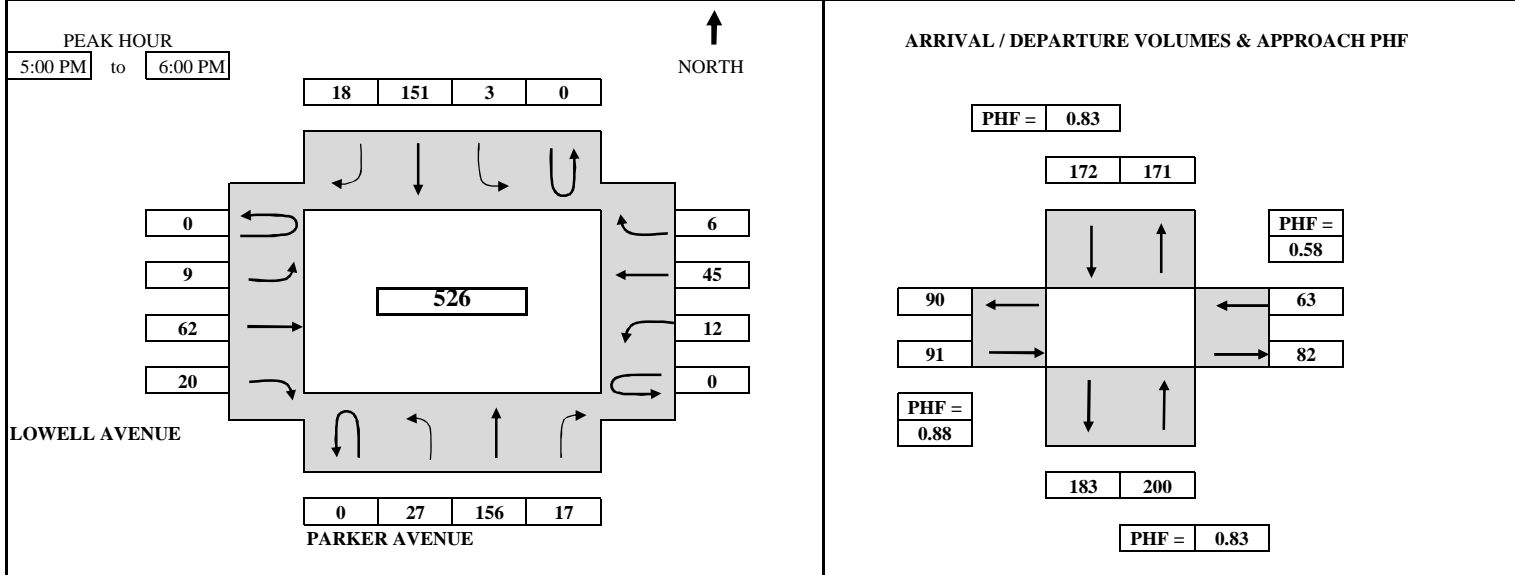
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

# B.A.Y.M.E.T.R.I.C.S.

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/23/2014	<b>DAY:</b>	TUESDAY
<b>N-S APPROACH:</b>	PARKER AVENUE	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W APPROACH:</b>	LOWELL AVENUE	<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-4PM



TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT		THRU	RIGHT
<b>SURVEY DATA</b>																			
4:00 PM	to	4:15 PM	6	32	7	1	30	2	2	17	7	1	28	2	135				
4:15 PM	to	4:30 PM	10	51	8	2	56	3	5	26	11	1	49	5	227				
4:30 PM	to	4:45 PM	18	75	12	5	89	7	8	40	16	7	65	5	347				
4:45 PM	to	5:00 PM	21	111	16	7	133	10	13	55	25	8	78	5	482				
5:00 PM	to	5:15 PM	30	157	21	8	177	12	16	70	33	10	82	6	622				
5:15 PM	to	5:30 PM	39	188	25	9	213	17	17	84	41	13	95	8	749				
5:30 PM	to	5:45 PM	41	227	30	9	238	23	22	98	43	15	104	8	858				
5:45 PM	to	6:00 PM	48	267	33	10	284	28	22	117	45	20	123	11	1008				

<b>TOTAL BY PERIOD</b>																			
TIME PERIOD	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL
4:00 PM	to	4:15 PM	0	6	32	7	0	1	30	2	0	2	17	7	0	1	28	2	135
4:15 PM	to	4:30 PM	0	4	19	1	0	1	26	1	0	3	9	4	0	0	21	3	92
4:30 PM	to	4:45 PM	0	8	24	4	0	3	33	4	0	3	14	5	0	6	16	0	120
4:45 PM	to	5:00 PM	0	3	36	4	0	2	44	3	0	5	15	9	0	1	13	0	135
5:00 PM	to	5:15 PM	0	9	46	5	0	1	44	2	0	3	15	8	0	2	4	1	140
5:15 PM	to	5:30 PM	0	9	31	4	0	1	36	5	0	1	14	8	0	3	13	2	127
5:30 PM	to	5:45 PM	0	2	39	5	0	0	25	6	0	5	14	2	0	2	9	0	109
5:45 PM	to	6:00 PM	0	7	40	3	0	1	46	5	0	0	19	2	0	5	19	3	150

<b>HOURLY TOTALS</b>																			
TIME PERIOD	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	TOTAL
4:00 PM	to	5:00 PM	0	21	111	16	0	7	133	10	0	13	55	25	0	8	78	5	482
4:15 PM	to	5:15 PM	0	24	125	14	0	7	147	10	0	14	53	26	0	9	54	4	487
4:30 PM	to	5:30 PM	0	29	137	17	0	7	157	14	0	12	58	30	0	12	46	3	522
4:45 PM	to	5:45 PM	0	23	152	18	0	4	149	16	0	14	58	27	0	8	39	3	511
5:00 PM	to	6:00 PM	0	27	156	17	0	3	151	18	0	9	62	20	0	12	45	6	526

<b>PEAK HOUR SUMMARY</b>																			
TIME PERIOD	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL		
5:00 PM to 6:00 PM	0	27	156	17	0	3	151	18	0	9	62	20	0	12	45	6	526		
PHF BY MOVEMENT	0.00	0.75	0.85	0.85	0.00	0.75	0.82	0.75	0.00	0.45	0.82	0.63	0.00	0.60	0.59	0.50	OVERALL		
PHF BY APPROACH	0.83				0.83				0.88				0.58				0.88		

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272



# BAYMETRICS

## VEHICLE CLASSIFICATION SUMMARY

PROJECT:	TRAFFIC COUNTS IN TRACY	SURVEY DATE:	9/24/2014	SURVEY DAY:	Wednesday
LOCATION:	A. On Eaton Avenue, between Parker Avenue & Wall Street	SURVEY TIME:	12:00 AM TO	12:00 AM	
JURISDICTION:	TRACY	FILE:	3409111-Eaton Av		

SUMMARY																	
DIRECTION: EASTBOUND									WESTBOUND								
CLASSIFICATION	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	
PEAK	AM	0	147	6	0	0	0	153	1	158	1	0	0	0	0	160	
		0	96.0784314	3.92156863	0	0	0	100	0.625	98.75	0.625	0	0	0	0	100	
HOUR	MD	0	115	2	0	0	0	117	0	92	9	1	0	0	0	102	
		0	98.2905983	1.70940171	0	0	0	0	100	0	90.1960784	8.82352941	0.98039216	0	0	0	100
	PM	0	173	4	0	0	0	177	0	153	9	0	1	1	0	164	
		0	97.740113	2.25988701	0	0	0	0	100	0	93.2926829	5.48780488	0	0.6097561	0.6097561	0	100
	EVEN	0	74	3	0	0	0	77	0	49	3	0	0	0	0	52	
		0	96.1038961	3.8961039	0	0	0	0	100	0	94.2307692	5.76923077	0	0	0	0	100

EASTBOUND									WESTBOUND								
From	To	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES

### 15 MIN TOTALS

12:00 AM --- 12:15 AM	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	2
12:15 AM --- 12:30 AM	0	3	0	0	0	0	0	3	0	1	0	0	0	0	0	1
12:30 AM --- 12:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
12:45 AM --- 01:00 AM	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	2
01:00 AM --- 01:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
01:15 AM --- 01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM --- 01:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
01:45 AM --- 02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM --- 02:15 AM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0
02:15 AM --- 02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM --- 02:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
02:45 AM --- 03:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
03:00 AM --- 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM --- 03:30 AM	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
03:30 AM --- 03:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
03:45 AM --- 04:00 AM	0	0	1	0	0	0	0	1	0	2	0	0	0	0	0	2
04:00 AM --- 04:15 AM	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
04:15 AM --- 04:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
04:30 AM --- 04:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7
04:45 AM --- 05:00 AM	0	1	0	0	0	0	0	1	0	3	0	0	0	0	0	3
05:00 AM --- 05:15 AM	0	2	0	0	0	0	0	2	0	5	1	0	0	0	0	6
05:15 AM --- 05:30 AM	0	2	0	1	0	0	0	3	0	3	0	0	0	0	0	3
05:30 AM --- 05:45 AM	0	5	0	0	0	0	0	5	1	3	0	0	0	0	0	4
05:45 AM --- 06:00 AM	0	2	1	1	0	0	0	4	0	6	0	0	0	0	0	6
06:00 AM --- 06:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
06:15 AM --- 06:30 AM	0	3	0	0	0	0	0	3	0	2	1	0	0	0	0	3
06:30 AM --- 06:45 AM	0	9	0	0	0	0	0	9	0	2	0	0	0	0	0	2
06:45 AM --- 07:00 AM	0	5	0	0	0	0	0	5	1	12	0	0	0	0	0	13
07:00 AM --- 07:15 AM	0	11	0	0	0	0	0	11	0	5	1	0	0	0	0	6
07:15 AM --- 07:30 AM	0	21	1	0	0	0	0	22	0	5	1	0	0	0	0	6
07:30 AM --- 07:45 AM	0	50	3	0	0	0	0	53	0	25	1	0	0	0	0	26
07:45 AM --- 08:00 AM	0	47	2	0	0	0	0	49	0	49	0	0	0	0	0	49
08:00 AM --- 08:15 AM	0	29	0	0	0	0	0	29	1	64	0	0	0	0	0	65
08:15 AM --- 08:30 AM	0	16	3	0	0	0	0	19	0	20	0	0	0	0	0	20
08:30 AM --- 08:45 AM	0	14	0	0	0	0	0	14	0	20	2	0	0	0	0	22
08:45 AM --- 09:00 AM	0	9	2	0	1	0	0	12	0	17	0	0	0	0	0	17
09:00 AM --- 09:15 AM	0	8	1	0	0	0	0	9	0	16	2	0	0	0	0	18
09:15 AM --- 09:30 AM	0	7	1	0	0	0	0	8	0	15	0	0	0	0	0	15
09:30 AM --- 09:45 AM	0	12	1	0	0	0	0	13	0	13	0	0	0	0	0	13
09:45 AM --- 10:00 AM	0	10	0	0	0	0	0	10	0	14	0	0	0	0	0	14
10:00 AM --- 10:15 AM	0	11	2	0	0	0	0	13	0	12	2	0	0	0	0	14
10:15 AM --- 10:30 AM	0	13	2	0	0	0	0	15	0	13	0	0	0	0	0	13
10:30 AM --- 10:45 AM	0	15	1	0	0	0	0	16	0	20	1	0	0	0	0	21
10:45 AM --- 11:00 AM	0	14	0	0	0	0	0	14	0	19	2	0	0	0	0	21
11:00 AM --- 11:15 AM	0	21	0	0	0	0	0	21	0	18	2	0	0	0	0	20
11:15 AM --- 11:30 AM	0	17	1	0	0	0	0	18	0	7	1	0	0	0	0	8
11:30 AM --- 11:45 AM	0	13	0	0	0	0	0	13	0	27	0	0	0	0	0	27
11:45 AM --- 12:00 PM	0	27	2	0	0	0	0	29	0	16	0	0	0	0	0	16
12:00 PM --- 12:15 PM	0	11	1	0	0	0	0	12	0	17	3	0	1	0	0	21
12:15 PM --- 12:30 PM	0	10	0	0	0	0	0	10	1	10	0	1	0	0	0	12
12:30 PM --- 12:45 PM	0	14	0	0	0	0	0	14	0	14	3	0	0	0	0	17
12:45 PM --- 01:00 PM	0	17	1	0	0	0	0	18	0	13	1	0	0	0	0	14
01:00 PM --- 01:15 PM	0	17	1	0	0	0	0	18	0	8	3	0	0	0	0	11
01:15 PM --- 01:30 PM	0	18	0	0	0	0	0	18	0	10	2	0	0	0	0	12
01:30 PM --- 01:45 PM	0	17	2	0	0	0	0	19	0	8	2	0	0	0	0	10
01:45 PM --- 02:00 PM	0	23	1	0	0	0	0	24	0	13	2	0	0	0	0	15
02:00 PM --- 02:15 PM	0	33	1	0	0	0	0	34	0	17	3	1	0	0	0	21
02:15 PM --- 02:30 PM	0	24	0	0	0	0	0	24	0	41	2	0	0	0	0	43
02:30 PM --- 02:45 PM	0	35	0	0	0	0	0	35	0	21	2	0	0	0	0	23
02:45 PM --- 03:00 PM	0	48	1	0	0	0	0	49	1	42	1	0	0	0	0	44
03:00 PM --- 03:15 PM	0	27	2	0	0	0	0	29	0	48	2	0	0	0	0	50
03:15 PM --- 03:30 PM	0	35	1	0	0	0	0	36	0	20	3	0	0	1	0	24
03:30 PM --- 03:45 PM	0	40	0	0	0	0	0	40	0	23	4	0	1	0	0	28
03:45 PM --- 04:00 PM	0	68	1	0	0	0	0	69	0	62	0	0	0	0	0	62
04:00 PM --- 04:15 PM	0	30	2	0	0	0	0	32	0	33	0	0	0	0	0	33
04:15 PM --- 04:30 PM	0	34	0	0	0	0	0	34	0	15	2	0	0	0	0	17
04:30 PM --- 04:45 PM	0	19	1	0	0	0	0	20	0	10	1	0	0	0	0	11
04:45 PM --- 05:00 PM	0	50	3	0	0	0	0	53	1	31	0	0	0	0	0	32
05:00 PM --- 05:15 PM	0	34	2	0	0	0	0	36	0	43	1	0	0	1	0	45
05:15 PM --- 05:30 PM	1	29	0	0	0	1	0	31	0	21	3	0	0	1	0	25
05:30 PM --- 05:45 PM	0	27	2	0	0	0	0	29	0	16	4	0	0	0	0	20
05:45 PM --- 06:00 PM	0	33	0	0	0	0	0	33	0	27	1	0	0	0	0	28
06:00 PM --- 06:15 PM	0	21	1	0	0	0	0	22	0	33	4	0	0	0	0	37
06:15 PM --- 06:30 PM	0	18	1	0	0	0	0	19	0	13	0	0	0	0	0	13
06:30 PM --- 06:45 PM	0	24	1	0	0	0	0	25	0	12	3	0	0	0	0	15
06:45 PM --- 07:00 PM	0	18	1	0	0	0	0	19	0	18	0	0	0	0	0	18
07:00 PM --- 07:15 PM	0	34	1	0	0	0	0	35	0	14	0	0	1	0	0	15
07:15 PM --- 07:30 PM	0	14	1	0	0	0	0	15	0	8	1	0	0	0	0	9
07:30 PM --- 07:45 PM	0	17	1	0	0	0	0	18	0	13	0	0	0	0	0	13
07:45 PM --- 08:00 PM	0	9	0	0	0	0	0	9	0	12	0	0	0	0	0	12
08:00 PM --- 08:15 PM	0	10	0	0	0	0	0	10	0	16	2	0	0	0	0	18
08:15 PM --- 08:30 PM	0	8	0	0	0	0	0	8	0	7	1	0	0	0	0	8
08:30 PM --- 08:45 PM	0	9	0	0	0	0	0	9	0	6	0	0	0	0	0	

10:15 PM ---- 10:30 PM	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
10:30 PM ---- 10:45 PM	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
10:45 PM ---- 11:00 PM	0	3	0	0	0	0	0	3	0	2	0	0	0	0	0	2	
11:00 PM ---- 11:15 PM	0	3	0	0	0	0	0	3	0	2	1	0	0	0	0	3	
11:15 PM ---- 11:30 PM	0	4	0	0	0	0	0	4	0	1	0	0	0	0	0	1	
11:30 PM ---- 11:45 PM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	
11:45 PM ---- 12:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
<b>CLASSIFICATION</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	
<b>DAILY VOLUME</b>	<b>1</b>	<b>1,327</b>	<b>53</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1,385</b>	<b>7</b>	<b>1,212</b>	<b>80</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>1,307</b>	
<b>PERCENTAGE</b>	<b>0.07</b>	<b>95.81</b>	<b>3.83</b>	<b>0.14</b>	<b>0.07</b>	<b>0.07</b>	<b>0.00</b>	<b>100</b>	<b>0.54</b>	<b>92.73</b>	<b>6.12</b>	<b>0.15</b>	<b>0.23</b>	<b>0.23</b>	<b>0.00</b>	<b>100</b>	
<i>Telephone : (510) 232-1271</i>									<i>Fax : (510) 232-1272</i>								
<b>EASTBOUND</b>									<b>WESTBOUND</b>								
<b>From</b>	<b>To</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>
<b>HOURLY</b>									<b>TOTALS</b>								
12:00 AM ---- 01:00 AM	0	6	0	0	0	0	0	6	0	5	0	0	0	0	0	0	5
12:15 AM ---- 01:15 AM	0	5	0	0	0	0	0	5	0	5	0	0	0	0	0	0	5
12:30 AM ---- 01:30 AM	0	2	0	0	0	0	0	2	0	4	0	0	0	0	0	0	4
12:45 AM ---- 01:45 AM	0	1	0	0	0	0	0	1	0	5	0	0	0	0	0	0	5
01:00 AM ---- 02:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
01:15 AM ---- 02:15 AM	0	2	0	0	0	0	0	2	0	1	0	0	0	0	0	0	1
01:30 AM ---- 02:30 AM	0	2	0	0	0	0	0	2	0	1	0	0	0	0	0	0	1
01:45 AM ---- 02:45 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
02:00 AM ---- 03:00 AM	0	3	0	0	0	0	0	3	0	2	0	0	0	0	0	0	2
02:15 AM ---- 03:15 AM	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2
02:30 AM ---- 03:30 AM	0	2	0	0	0	0	0	2	0	3	0	0	0	0	0	0	3
02:45 AM ---- 03:45 AM	0	1	0	0	0	0	0	1	0	5	0	0	0	0	0	0	5
03:00 AM ---- 04:00 AM	0	1	1	0	0	0	0	2	0	5	0	0	0	0	0	0	5
03:15 AM ---- 04:15 AM	0	2	1	0	0	0	0	3	0	6	0	0	0	0	0	0	6
03:30 AM ---- 04:30 AM	0	1	1	0	0	0	0	2	0	7	0	0	0	0	0	0	7
03:45 AM ---- 04:45 AM	0	1	1	0	0	0	0	2	0	12	0	0	0	0	0	0	12
04:00 AM ---- 05:00 AM	0	2	0	0	0	0	0	2	0	13	0	0	0	0	0	0	13
04:15 AM ---- 05:15 AM	0	3	0	0	0	0	0	3	0	17	1	0	0	0	0	0	18
04:30 AM ---- 05:30 AM	0	5	0	1	0	0	0	6	0	18	1	0	0	0	0	0	19
04:45 AM ---- 05:45 AM	0	10	0	1	0	0	0	11	1	14	1	0	0	0	0	0	16
05:00 AM ---- 06:00 AM	0	11	1	2	0	0	0	14	1	17	1	0	0	0	0	0	19
05:15 AM ---- 06:15 AM	0	9	1	2	0	0	0	12	1	14	0	0	0	0	0	0	15
05:30 AM ---- 06:30 AM	0	10	1	1	0	0	0	12	1	13	1	0	0	0	0	0	15
05:45 AM ---- 06:45 AM	0	14	1	1	0	0	0	16	0	12	1	0	0	0	0	0	13
06:00 AM ---- 07:00 AM	0	17	0	0	0	0	0	17	1	18	1	0	0	0	0	0	20
06:15 AM ---- 07:15 AM	0	28	0	0	0	0	0	28	1	21	2	0	0	0	0	0	24
06:30 AM ---- 07:30 AM	0	46	1	0	0	0	0	47	1	24	2	0	0	0	0	0	27
06:45 AM ---- 07:45 AM	0	87	4	0	0	0	0	91	1	47	3	0	0	0	0	0	51
07:00 AM ---- 08:00 AM	0	129	6	0	0	0	0	135	0	84	3	0	0	0	0	0	87
07:15 AM ---- 08:15 AM	0	147	6	0	0	0	0	153	1	143	2	0	0	0	0	0	146
07:30 AM ---- 08:30 AM	0	142	8	0	0	0	0	150	1	158	1	0	0	0	0	0	160
07:45 AM ---- 08:45 AM	0	106	5	0	0	0	0	111	1	153	2	0	0	0	0	0	156
08:00 AM ---- 09:00 AM	0	68	5	0	1	0	0	74	1	121	2	0	0	0	0	0	124
08:15 AM ---- 09:15 AM	0	47	6	0	1	0	0	54	0	73	4	0	0	0	0	0	77
08:30 AM ---- 09:30 AM	0	38	4	0	1	0	0	43	0	68	4	0	0	0	0	0	72
08:45 AM ---- 09:45 AM	0	36	5	0	1	0	0	42	0	61	2	0	0	0	0	0	63
09:00 AM ---- 10:00 AM	0	37	3	0	0	0	0	40	0	58	2	0	0	0	0	0	60
09:15 AM ---- 10:15 AM	0	40	4	0	0	0	0	44	0	54	2	0	0	0	0	0	56
09:30 AM ---- 10:30 AM	0	46	5	0	0	0	0	51	0	52	2	0	0	0	0	0	54
09:45 AM ---- 10:45 AM	0	49	5	0	0	0	0	54	0	59	3	0	0	0	0	0	62
10:00 AM ---- 11:00 AM	0	53	5	0	0	0	0	58	0	64	5	0	0	0	0	0	69
10:15 AM ---- 11:15 AM	0	63	3	0	0	0	0	66	0	70	5	0	0	0	0	0	75
10:30 AM ---- 11:30 AM	0	67	2	0	0	0	0	69	0	64	6	0	0	0	0	0	70
10:45 AM ---- 11:45 AM	0	65	1	0	0	0	0	66	0	71	5	0	0	0	0	0	76
11:00 AM ---- 12:00 PM	0	78	3	0	0	0	0	81	0	68	3	0	0	0	0	0	71
11:15 AM ---- 12:15 PM	0	68	4	0	0	0	0	72	0	67	4	0	1	0	0	0	72
11:30 AM ---- 12:30 PM	0	61	3	0	0	0	0	64	1	70	3	1	1	0	0	0	76
11:45 AM ---- 12:45 PM	0	62	3	0	0	0	0	65	1	57	6	1	1	0	0	0	66
12:00 PM ---- 01:00 PM	0	52	2	0	0	0	0	54	1	54	7	1	1	0	0	0	64
12:15 PM ---- 01:15 PM	0	58	2	0	0	0	0	60	1	45	7	1	0	0	0	0	54
12:30 PM ---- 01:30 PM	0	66	2	0	0	0	0	68	0	45	9	0	0	0	0	0	54
12:45 PM ---- 01:45 PM	0	69	4	0	0	0	0	73	0	39	8	0	0	0	0	0	47
01:00 PM ---- 02:00 PM	0	75	4	0	0	0	0	79	0	39	9	0	0	0	0	0	48
01:15 PM ---- 02:15 PM	0	91	4	0	0	0	0	95	0	48	9	1	0	0	0	0	58
01:30 PM ---- 02:30 PM	0	97	4	0	0	0	0	101	0	79	9	1	0	0	0	0	89
01:45 PM ---- 02:45 PM	0	115	2	0	0	0	0	117	0	92	9	1	0	0	0	0	102
02:00 PM ---- 03:00 PM	0	140	2	0	0	0	0	142	1	121	8	1	0	0	0	0	131
02:15 PM ---- 03:15 PM	0	134	3	0	0	0	0	137	1	152	7	0	0	0	0	0	160
02:30 PM ---- 03:30 PM	0	145	4	0	0	0	0	149	1	131	8	0	0	1	0	0	141
02:45 PM ---- 03:45 PM	0	150	4	0	0	0	0	154	1	133	10	0	1	1	0	0	146
03:00 PM ---- 04:00 PM	0	170	4	0	0	0	0	174	0	153	9	0	1	1	0	0	164
03:15 PM ---- 04:15 PM	0	173	4	0	0	0	0	177	0	138	7	0	1	1	0	0	147
03:30 PM ---- 04:30 PM	0	172	3	0	0	0	0	175	0	133	6	0	1	0	0	0	140
03:45 PM ---- 04:45 PM	0	151	4	0	0	0	0	155	0	120	3	0	0	0	0	0	123
04:00 PM ---- 05:00 PM	0	133	6	0	0	0	0	139	1	89	3	0	0	0	0	0	93
04:15 PM ---- 05:15 PM	0	137	6	0	0	0	0	143	1	99	4	0	0	1	0	0	105
04:30 PM ---- 05:30 PM	1	132	6	0	0	1	0	140	1	105	5	0	0	2	0	0	113
04:45 PM ---- 05:45 PM	1	140	7	0	0	1	0	149	1	111	8	0	0	2	0	0	122
05:00 PM ---- 06:00 PM	1	123	4	0	0	1	0	129	0	107	9	0	0	2	0	0	118
05:15 PM ---- 06:15 PM	1	110	3	0	0	1	0	115	0	97	12	0	0	1	0	0	110
05:30 PM ---- 06:30 PM	0	99	4	0	0	0	0	103	0	89	9	0	0	0	0	0	98
05:45 PM ---- 06:45 PM	0	96	3	0	0	0	0	99	0	85	8	0	0	0	0	0	93
06:00 PM ---- 07:00 PM	0	81	4	0	0	0	0	85	0	76	7	0	0	0	0	0	83
06:15 PM ---- 07:15 PM	0	94	4	0	0	0	0	98	0	57	3	0	1	0	0	0	61
06:30 PM ---- 07:30 PM	0	90	4	0	0	0	0	94	0	52	4	0	1	0	0	0	57
06:45 PM ---- 07:45 PM	0	83	4	0	0	0	0	87	0	53	1	0	1	0	0	0	55
07:00 PM ---- 08:00 PM	0	74	3	0	0	0	0	77	0	47	1	0	1	0	0	0	49
07:15 PM ---- 08:15 PM	0	50	2	0	0	0	0	52	0	49	3	0	0	0	0	0	52
07:30 PM ---- 08:30 PM	0	44	1	0	0	0	0	45	0	48	3	0	0	0	0	0	51
07:45 PM ---- 08:45 PM	0	36	0	0	0	0	0	36	0	41	3	0	0	0	0	0	44
08:00 PM ---- 09:00 PM	0	34	0	0	0	0	0	34	0	35	3	0	0	0</			

# BAYMETRICS

## VEHICLE CLASSIFICATION SUMMARY

PROJECT:	TRAFFIC COUNTS IN TRACY	SURVEY DATE:	9/25/2014	SURVEY DAY:	Thursday
LOCATION:	A. On Eaton Avenue, between Parker Avenue & Wall Street	SURVEY TIME:	12:00 AM TO	12:00 AM	
JURISDICTION:	TRACY	FILE:	3409111-Eaton Av		

SUMMARY																	
DIRECTION: EASTBOUND									WESTBOUND								
CLASSIFICATION	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	
PEAK	AM	0	166	7	0	0	2	0	175	0	143	11	0	0	0	0	154
		0	94.8571429	4	0	0	1.14285714	0	100	0	92.8571429	7.14285714	0	0	0	0	100
HOURLY	MD	0	91	4	0	0	0	0	95	0	86	3	0	0	0	0	89
		0	95.7894737	4.21052632	0	0	0	0	100	0	96.6292135	3.37078652	0	0	0	0	100
	PM	1	181	1	0	0	0	0	183	1	124	10	0	0	2	0	137
		0.546448087	98.9071038	0.54644809	0	0	0	0	100	0.72992701	90.5109489	7.29927007	0	0	1.45985401	0	100
EVEN		0	47	3	0	0	0	0	50	1	61	8	0	0	0	0	70
		0	94	6	0	0	0	0	100	1.42857143	87.1428571	11.4285714	0	0	0	0	100

EASTBOUND									WESTBOUND								
From	To	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES

### 15 MIN TOTALS

12:00 AM --- 12:15 AM	0	2	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
12:15 AM --- 12:30 AM	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
12:30 AM --- 12:45 AM	0	2	0	0	0	0	0	0	2	0	1	0	0	0	0	0	1
12:45 AM --- 01:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
01:00 AM --- 01:15 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
01:15 AM --- 01:30 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
01:30 AM --- 01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM --- 02:00 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
02:00 AM --- 02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM --- 02:30 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
02:30 AM --- 02:45 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
02:45 AM --- 03:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
03:00 AM --- 03:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:15 AM --- 03:30 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
03:30 AM --- 03:45 AM	0	1	0	0	0	0	0	0	1	0	3	0	0	0	0	0	3
03:45 AM --- 04:00 AM	0	0	1	0	0	0	0	0	1	0	1	1	0	0	0	0	2
04:00 AM --- 04:15 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
04:15 AM --- 04:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
04:30 AM --- 04:45 AM	0	1	0	0	0	0	0	0	1	0	4	0	0	0	0	0	4
04:45 AM --- 05:00 AM	0	4	0	0	0	0	0	0	4	0	1	0	0	0	0	0	1
05:00 AM --- 05:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
05:15 AM --- 05:30 AM	0	2	0	0	0	0	0	0	2	0	4	0	0	0	0	0	4
05:30 AM --- 05:45 AM	0	2	0	0	0	0	0	0	2	0	3	0	0	1	0	0	4
05:45 AM --- 06:00 AM	0	5	1	0	0	0	0	0	6	0	3	0	0	0	0	0	3
06:00 AM --- 06:15 AM	0	2	0	0	0	0	0	0	2	0	5	0	0	0	0	0	5
06:15 AM --- 06:30 AM	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	0	3
06:30 AM --- 06:45 AM	0	6	0	0	0	0	0	0	6	0	5	1	0	0	0	0	6
06:45 AM --- 07:00 AM	0	10	0	0	0	0	0	0	10	0	8	0	0	0	0	0	8
07:00 AM --- 07:15 AM	0	7	0	0	0	0	0	0	7	0	9	1	0	0	0	0	10
07:15 AM --- 07:30 AM	0	17	1	0	0	0	0	0	18	0	7	1	0	0	0	0	8
07:30 AM --- 07:45 AM	0	57	2	0	0	0	0	0	59	0	16	0	0	0	0	0	16
07:45 AM --- 08:00 AM	0	54	2	0	0	1	0	0	57	0	34	4	0	0	0	0	38
08:00 AM --- 08:15 AM	0	34	1	0	0	1	0	0	36	0	61	6	0	0	0	0	67
08:15 AM --- 08:30 AM	0	21	2	0	0	0	0	0	23	0	26	0	0	0	0	0	26
08:30 AM --- 08:45 AM	0	13	1	0	0	0	0	0	14	0	22	1	0	0	0	0	23
08:45 AM --- 09:00 AM	0	9	0	0	0	0	0	0	9	0	9	0	0	0	0	0	9
09:00 AM --- 09:15 AM	0	8	1	0	0	0	0	0	9	0	13	0	0	0	0	0	13
09:15 AM --- 09:30 AM	0	6	1	0	0	0	0	0	7	1	9	0	0	0	0	0	10
09:30 AM --- 09:45 AM	0	16	1	0	0	0	0	0	17	0	14	1	0	0	0	0	15
09:45 AM --- 10:00 AM	0	21	0	0	0	0	0	0	21	0	17	0	0	0	0	0	17
10:00 AM --- 10:15 AM	0	16	2	0	0	0	0	0	18	0	18	1	0	0	0	0	19
10:15 AM --- 10:30 AM	0	9	0	0	0	0	0	0	9	0	17	0	0	0	0	0	17
10:30 AM --- 10:45 AM	0	6	2	0	0	0	0	0	8	0	11	1	0	0	0	0	12
10:45 AM --- 11:00 AM	0	11	0	0	0	0	0	0	11	0	18	0	0	0	0	0	18
11:00 AM --- 11:15 AM	0	14	2	0	0	0	0	0	16	0	27	0	0	0	0	0	27
11:15 AM --- 11:30 AM	0	13	0	0	0	0	0	0	13	0	13	0	1	0	0	0	14
11:30 AM --- 11:45 AM	0	19	2	0	0	0	0	0	21	0	15	0	0	0	0	0	15
11:45 AM --- 12:00 PM	0	10	0	0	0	0	0	0	10	0	12	0	1	0	0	0	13
12:00 PM --- 12:15 PM	0	18	2	0	0	0	0	0	20	0	11	0	0	0	0	0	11
12:15 PM --- 12:30 PM	0	15	1	0	0	0	0	0	16	0	11	0	0	0	0	0	11
12:30 PM --- 12:45 PM	0	8	1	0	0	0	0	0	9	0	13	0	0	0	0	0	13
12:45 PM --- 01:00 PM	0	11	0	0	0	0	0	0	11	0	14	0	0	0	0	0	14
01:00 PM --- 01:15 PM	0	10	1	0	0	0	0	0	11	1	9	0	0	0	0	0	10
01:15 PM --- 01:30 PM	0	9	0	0	0	0	0	0	9	0	16	0	0	0	0	0	16
01:30 PM --- 01:45 PM	0	12	3	0	0	0	0	0	15	0	14	0	0	0	0	0	14
01:45 PM --- 02:00 PM	0	18	0	0	0	0	0	0	18	0	16	0	0	0	0	0	16
02:00 PM --- 02:15 PM	0	27	1	0	0	0	0	0	28	0	22	2	0	0	0	0	24
02:15 PM --- 02:30 PM	0	19	0	0	0	0	0	0	19	0	32	0	0	0	0	0	32
02:30 PM --- 02:45 PM	0	27	3	0	0	0	0	0	30	0	16	1	0	0	0	0	17
02:45 PM --- 03:00 PM	0	35	1	0	0	0	0	0	36	0	25	2	0	0	1	0	28
03:00 PM --- 03:15 PM	0	24	1	0	0	0	0	0	25	1	45	0	0	0	0	0	46
03:15 PM --- 03:30 PM	0	32	2	0	0	0	0	0	34	0	17	2	0	0	1	0	20
03:30 PM --- 03:45 PM	0	35	0	0	0	0	0	0	35	0	26	0	0	0	1	0	27
03:45 PM --- 04:00 PM	0	56	2	0	0	0	0	0	58	0	36	8	0	0	0	0	44
04:00 PM --- 04:15 PM	0	27	1	0	0	0	0	0	28	0	37	2	0	0	0	0	39
04:15 PM --- 04:30 PM	0	32	0	0	0	0	0	0	32	0	24	1	0	0	1	0	26
04:30 PM --- 04:45 PM	0	24	2	0	0	0	0	0	26	0	18	3	0	0	0	0	21
04:45 PM --- 05:00 PM	0	58	0	0	0	0	0	0	58	0	36	0	0	0	0	0	36
05:00 PM --- 05:15 PM	0	43	1	0	0	0	0	0	44	0	33	3	0	0	1	0	37
05:15 PM --- 05:30 PM	0	45	0	0	0	0	0	0	45	0	22	0	0	0	0	0	22
05:30 PM --- 05:45 PM	1	35	0	0	0	0	0	0	36	0	12	1	0	0	1	0	14
05:45 PM --- 06:00 PM	0	21	2	0	0	0	0	0	23	0	19	1	0	0	0	0	20
06:00 PM --- 06:15 PM	0	20	2	0	0	0	0	0	22	1	20	0	0	0	1	0	22
06:15 PM --- 06:30 PM	0	22	0	0	0	0	0	0	22	0	20	5	0	0	0	0	25
06:30 PM --- 06:45 PM	0	20	1	0	0	0	0	0	21	0	27	0	0	0	0	0	27
06:45 PM --- 07:00 PM	0	20	1	0	0	0	0	0	21	0	14	0	0	0	0	0	14
07:00 PM --- 07:15 PM	0	19	1	0	0	0	0	0	20	0	10	1	0	0	0	0	11
07:15 PM --- 07:30 PM	0	10	0	0	0	0	0	0	10	0	23	3	0	0	0	0	26
07:30 PM --- 07:45 PM	0	9	2	0	0	0	0	0	11	1	11	1	0	0			

10:15 PM ---- 10:30 PM	0	2	0	0	0	0	0	2	0	1	1	0	0	0	0	2	
10:30 PM ---- 10:45 PM	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	2	
10:45 PM ---- 11:00 PM	0	2	0	0	0	0	0	2	0	3	0	0	0	0	0	3	
11:00 PM ---- 11:15 PM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	
11:15 PM ---- 11:30 PM	0	3	0	0	0	0	0	3	0	1	0	0	0	0	0	1	
11:30 PM ---- 11:45 PM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	
11:45 PM ---- 12:00 AM	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	2	
<b>CLASSIFICATION</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	
<b>DAILY VOLUME</b>	<b>1</b>	<b>1,241</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1,299</b>	<b>6</b>	<b>1,151</b>	<b>65</b>	<b>2</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>1,232</b>	
<b>PERCENTAGE</b>	<b>0.08</b>	<b>95.54</b>	<b>4.23</b>	<b>0.00</b>	<b>0.00</b>	<b>0.15</b>	<b>0.00</b>	<b>100</b>	<b>0.49</b>	<b>93.43</b>	<b>5.28</b>	<b>0.16</b>	<b>0.08</b>	<b>0.57</b>	<b>0.00</b>	<b>100</b>	
<i>Telephone : (510) 232-1271</i>									<i>Fax : (510) 232-1272</i>								
<b>EASTBOUND</b>									<b>WESTBOUND</b>								
<b>From</b>	<b>To</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>
<b>HOURLY</b>									<b>TOTALS</b>								
12:00 AM ---- 12:15 AM	0	6	0	0	0	0	0	6	0	5	0	0	0	0	0	0	5
12:15 AM ---- 01:15 AM	0	5	0	0	0	0	0	5	0	3	0	0	0	0	0	0	3
12:30 AM ---- 01:30 AM	0	4	0	0	0	0	0	4	0	3	0	0	0	0	0	0	3
12:45 AM ---- 01:45 AM	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
01:00 AM ---- 02:00 AM	0	3	0	0	0	0	0	3	0	1	0	0	0	0	0	0	1
01:15 AM ---- 02:15 AM	0	2	0	0	0	0	0	2	0	1	0	0	0	0	0	0	1
01:30 AM ---- 02:30 AM	0	2	0	0	0	0	0	2	0	1	0	0	0	0	0	0	1
01:45 AM ---- 02:45 AM	0	3	0	0	0	0	0	3	0	1	0	0	0	0	0	0	1
02:00 AM ---- 03:00 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
02:15 AM ---- 03:15 AM	0	3	0	0	0	0	0	3	0	1	0	0	0	0	0	0	1
02:30 AM ---- 03:30 AM	0	3	0	0	0	0	0	3	0	1	0	0	0	0	0	0	1
02:45 AM ---- 03:45 AM	0	3	0	0	0	0	0	3	0	4	0	0	0	0	0	0	4
03:00 AM ---- 04:00 AM	0	2	1	0	0	0	0	3	0	5	1	0	0	0	0	0	6
03:15 AM ---- 04:15 AM	0	3	1	0	0	0	0	4	0	5	1	0	0	0	0	0	6
03:30 AM ---- 04:30 AM	0	2	1	0	0	0	0	3	0	9	1	0	0	0	0	0	10
03:45 AM ---- 04:45 AM	0	2	1	0	0	0	0	3	0	10	1	0	0	0	0	0	11
04:00 AM ---- 05:00 AM	0	6	0	0	0	0	0	6	0	10	0	0	0	0	0	0	10
04:15 AM ---- 05:15 AM	0	5	0	0	0	0	0	5	0	13	0	0	0	0	0	0	13
04:30 AM ---- 05:30 AM	0	7	0	0	0	0	0	7	0	13	0	0	0	0	0	0	13
04:45 AM ---- 05:45 AM	0	8	0	0	0	0	0	8	0	12	0	0	1	0	0	0	13
05:00 AM ---- 06:00 AM	0	9	1	0	0	0	0	10	0	14	0	0	1	0	0	0	15
05:15 AM ---- 06:15 AM	0	11	1	0	0	0	0	12	0	15	0	0	1	0	0	0	16
05:30 AM ---- 06:30 AM	0	9	2	0	0	0	0	11	0	14	0	0	1	0	0	0	15
05:45 AM ---- 06:45 AM	0	13	2	0	0	0	0	15	0	16	1	0	0	0	0	0	17
06:00 AM ---- 07:00 AM	0	18	1	0	0	0	0	19	0	21	1	0	0	0	0	0	22
06:15 AM ---- 07:15 AM	0	23	1	0	0	0	0	24	0	25	2	0	0	0	0	0	27
06:30 AM ---- 07:30 AM	0	40	1	0	0	0	0	41	0	29	3	0	0	0	0	0	32
06:45 AM ---- 07:45 AM	0	91	3	0	0	0	0	94	0	40	2	0	0	0	0	0	42
07:00 AM ---- 08:00 AM	0	135	5	0	0	1	0	141	0	66	6	0	0	0	0	0	72
07:15 AM ---- 08:15 AM	0	162	6	0	0	2	0	170	0	118	11	0	0	0	0	0	129
07:30 AM ---- 08:30 AM	0	166	7	0	0	2	0	175	0	137	10	0	0	0	0	0	147
07:45 AM ---- 08:45 AM	0	122	6	0	0	2	0	130	0	143	11	0	0	0	0	0	154
08:00 AM ---- 09:00 AM	0	77	4	0	0	1	0	82	0	118	7	0	0	0	0	0	125
08:15 AM ---- 09:15 AM	0	51	4	0	0	0	0	55	0	70	1	0	0	0	0	0	71
08:30 AM ---- 09:30 AM	0	36	3	0	0	0	0	39	1	53	1	0	0	0	0	0	55
08:45 AM ---- 09:45 AM	0	39	3	0	0	0	0	42	1	45	1	0	0	0	0	0	47
09:00 AM ---- 10:00 AM	0	51	3	0	0	0	0	54	1	53	1	0	0	0	0	0	55
09:15 AM ---- 10:15 AM	0	59	4	0	0	0	0	63	1	58	2	0	0	0	0	0	61
09:30 AM ---- 10:30 AM	0	62	3	0	0	0	0	65	0	66	2	0	0	0	0	0	68
09:45 AM ---- 10:45 AM	0	52	4	0	0	0	0	56	0	63	2	0	0	0	0	0	65
10:00 AM ---- 11:00 AM	0	42	4	0	0	0	0	46	0	64	2	0	0	0	0	0	66
10:15 AM ---- 11:15 AM	0	40	4	0	0	0	0	44	0	73	1	0	0	0	0	0	74
10:30 AM ---- 11:30 AM	0	44	4	0	0	0	0	48	0	69	1	1	0	0	0	0	71
10:45 AM ---- 11:45 AM	0	57	4	0	0	0	0	61	0	73	0	1	0	0	0	0	74
11:00 AM ---- 12:00 PM	0	56	4	0	0	0	0	60	0	67	0	2	0	0	0	0	69
11:15 AM ---- 12:15 PM	0	60	4	0	0	0	0	64	0	51	0	2	0	0	0	0	53
11:30 AM ---- 12:30 PM	0	62	5	0	0	0	0	67	0	49	0	1	0	0	0	0	50
11:45 AM ---- 12:45 PM	0	51	4	0	0	0	0	55	0	47	0	1	0	0	0	0	48
12:00 PM ---- 01:00 PM	0	52	4	0	0	0	0	56	0	49	0	0	0	0	0	0	49
12:15 PM ---- 01:15 PM	0	44	3	0	0	0	0	47	1	47	0	0	0	0	0	0	48
12:30 PM ---- 01:30 PM	0	38	2	0	0	0	0	40	1	52	0	0	0	0	0	0	53
12:45 PM ---- 01:45 PM	0	42	4	0	0	0	0	46	1	53	0	0	0	0	0	0	54
01:00 PM ---- 02:00 PM	0	49	4	0	0	0	0	53	1	55	0	0	0	0	0	0	56
01:15 PM ---- 02:15 PM	0	66	4	0	0	0	0	70	0	68	2	0	0	0	0	0	70
01:30 PM ---- 02:30 PM	0	76	4	0	0	0	0	80	0	84	2	0	0	0	0	0	86
01:45 PM ---- 02:45 PM	0	91	4	0	0	0	0	95	0	86	3	0	0	0	0	0	89
02:00 PM ---- 03:00 PM	0	108	5	0	0	0	0	113	0	95	5	0	0	1	0	0	101
02:15 PM ---- 03:15 PM	0	105	5	0	0	0	0	110	1	118	3	0	0	1	0	0	123
02:30 PM ---- 03:30 PM	0	118	7	0	0	0	0	125	1	103	5	0	0	2	0	0	111
02:45 PM ---- 03:45 PM	0	126	4	0	0	0	0	130	1	113	4	0	0	3	0	0	121
03:00 PM ---- 04:00 PM	0	147	5	0	0	0	0	152	1	124	10	0	0	2	0	0	137
03:15 PM ---- 04:15 PM	0	150	5	0	0	0	0	155	0	116	12	0	0	2	0	0	130
03:30 PM ---- 04:30 PM	0	150	3	0	0	0	0	153	0	123	11	0	0	2	0	0	136
03:45 PM ---- 04:45 PM	0	139	5	0	0	0	0	144	0	115	14	0	0	1	0	0	130
04:00 PM ---- 05:00 PM	0	141	3	0	0	0	0	144	0	115	6	0	0	1	0	0	122
04:15 PM ---- 05:15 PM	0	157	3	0	0	0	0	160	0	111	7	0	0	2	0	0	120
04:30 PM ---- 05:30 PM	0	170	3	0	0	0	0	173	0	109	6	0	0	1	0	0	116
04:45 PM ---- 05:45 PM	1	181	1	0	0	0	0	183	0	103	4	0	0	2	0	0	109
05:00 PM ---- 06:00 PM	1	144	3	0	0	0	0	148	0	86	5	0	0	2	0	0	93
05:15 PM ---- 06:15 PM	1	121	4	0	0	0	0	126	1	73	2	0	0	2	0	0	78
05:30 PM ---- 06:30 PM	1	98	4	0	0	0	0	103	1	71	7	0	0	2	0	0	81
05:45 PM ---- 06:45 PM	0	83	5	0	0	0	0	88	1	86	6	0	0	1	0	0	94
06:00 PM ---- 07:00 PM	0	82	4	0	0	0	0	86	1	81	5	0	0	1	0	0	88
06:15 PM ---- 07:15 PM	0	81	3	0	0	0	0	84	0	71	6	0	0	0	0	0	77
06:30 PM ---- 07:30 PM	0	69	3	0	0	0	0	72	0	74	4	0	0	0	0	0	78
06:45 PM ---- 07:45 PM	0	58	4	0	0	0	0	62	1	58	5	0	0	0	0	0	64
07:00 PM ---- 08:00 PM	0	47	3	0	0	0	0	50	1	61	8	0	0	0	0	0	70
07:15 PM ---- 08:15 PM	0	34	3	0	0	0	0	37	1	59	9	0	0	0	0	0	69
07:30 PM ---- 08:30 PM	0	28	3	0	0	0	0	31	1	44	11	0	0	0	0	0	56
07:45 PM ---- 08:45 PM	0	28	1	0	0	0	0	29	0	41	10	0	0	0	0	0	51
08:00 PM ---- 09:00 PM	0	28	1	0	0	0	0	29	0	39	7	0	0	0	0	0</	

# BAYMETRICS

## VEHICLE CLASSIFICATION SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/24/2014	<b>SURVEY DAY:</b>	Wednesday
<b>LOCATION:</b>	B. On Bessie Avenue, between Beverly Place & Eaton Avenue	<b>SURVEY TIME:</b>	12:00 AM TO 12:00 AM		
<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-Bessie Av		

SUMMARY																	
DIRECTION: NORTHBOUND									DIRECTION: SOUTHBOUND								
CLASSIFICATION	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	
PEAK	AM	3	194	3	1	0	1	0	202	0	165	7	0	2	2	0	176
		1.485148515	96.039604	1.48514851	0.4950495	0	0.4950495	0	100	0	93.75	3.97727273	0	1.13636364	1.13636364	0	100
HOURLY	MD	0	114	2	0	0	0	0	116	0	116	9	0	0	0	0	125
		0	98.2758621	1.72413793	0	0	0	0	100	0	92.8	7.2	0	0	0	0	100
	PM	0	123	3	0	0	0	0	126	1	139	6	0	0	0	0	146
		0	97.6190476	2.38095238	0	0	0	0	100	0.68493151	95.2054795	4.10958904	0	0	0	0	100
EVEN		0	54	2	0	0	0	0	56	0	60	5	0	0	0	0	65
		0	96.4285714	3.57142857	0	0	0	0	100	0	92.3076923	7.69230769	0	0	0	0	100

NORTHBOUND									SOUTHBOUND								
From	To	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES

### 15 MIN TOTALS

12:00 AM --- 12:15 AM	0	2	0	0	0	0	0	0	2	0	1	0	0	0	0	0	1
12:15 AM --- 12:30 AM	0	3	0	0	0	0	0	0	3	0	1	0	0	0	0	0	1
12:30 AM --- 12:45 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
12:45 AM --- 01:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
01:00 AM --- 01:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
01:15 AM --- 01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM --- 01:45 AM	0	1	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2
01:45 AM --- 02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM --- 02:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
02:15 AM --- 02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM --- 02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM --- 03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM --- 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM --- 03:30 AM	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
03:30 AM --- 03:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
03:45 AM --- 04:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:00 AM --- 04:15 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
04:15 AM --- 04:30 AM	0	2	0	0	0	0	0	0	2	0	6	0	0	0	0	0	6
04:30 AM --- 04:45 AM	0	3	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3
04:45 AM --- 05:00 AM	0	2	0	0	0	0	0	0	2	0	1	0	0	0	0	0	1
05:00 AM --- 05:15 AM	0	2	0	0	0	0	0	0	2	0	3	0	0	0	0	0	3
05:15 AM --- 05:30 AM	0	5	0	0	0	0	0	0	5	0	7	0	0	0	0	0	7
05:30 AM --- 05:45 AM	0	3	0	0	0	0	0	0	3	0	4	0	0	0	0	0	4
05:45 AM --- 06:00 AM	0	4	0	0	1	0	0	0	5	0	6	2	1	0	0	0	9
06:00 AM --- 06:15 AM	0	7	0	0	0	0	0	0	7	0	3	0	0	0	0	0	3
06:15 AM --- 06:30 AM	0	2	0	1	0	0	0	0	3	0	4	0	0	0	0	0	4
06:30 AM --- 06:45 AM	0	5	0	0	0	0	0	0	5	0	10	0	0	0	0	0	10
06:45 AM --- 07:00 AM	0	11	0	0	0	0	0	0	11	0	8	2	0	0	0	0	10
07:00 AM --- 07:15 AM	0	10	1	0	0	0	0	0	11	0	11	2	0	0	0	0	13
07:15 AM --- 07:30 AM	0	8	0	0	0	0	0	0	8	0	13	2	0	0	0	0	15
07:30 AM --- 07:45 AM	0	20	1	0	0	0	0	0	21	0	25	0	0	0	0	0	25
07:45 AM --- 08:00 AM	0	62	0	0	0	1	0	0	63	0	54	1	0	0	0	0	55
08:00 AM --- 08:15 AM	3	81	3	1	0	0	0	0	88	0	62	3	0	2	2	0	69
08:15 AM --- 08:30 AM	0	26	0	0	0	0	0	0	26	0	24	3	0	0	0	0	27
08:30 AM --- 08:45 AM	0	25	0	0	0	0	0	0	25	0	18	2	0	0	0	0	20
08:45 AM --- 09:00 AM	0	34	0	0	0	0	0	0	34	0	18	0	0	0	0	0	18
09:00 AM --- 09:15 AM	0	16	0	0	2	0	0	0	18	0	19	0	0	0	0	1	20
09:15 AM --- 09:30 AM	0	21	0	0	0	0	0	0	21	0	13	1	0	0	0	0	14
09:30 AM --- 09:45 AM	0	14	2	1	0	0	0	0	17	0	15	0	0	0	0	0	15
09:45 AM --- 10:00 AM	1	20	1	0	0	0	0	0	22	0	23	0	0	0	0	0	23
10:00 AM --- 10:15 AM	0	19	1	0	0	0	0	0	20	0	24	1	0	0	0	0	25
10:15 AM --- 10:30 AM	0	17	0	0	0	1	0	0	18	0	20	0	0	0	0	0	20
10:30 AM --- 10:45 AM	0	18	0	0	0	0	0	0	18	0	28	3	0	0	0	0	31
10:45 AM --- 11:00 AM	0	18	2	0	0	0	0	0	20	0	36	2	0	0	0	0	38
11:00 AM --- 11:15 AM	0	18	0	0	0	0	0	0	18	0	27	4	0	0	0	0	31
11:15 AM --- 11:30 AM	0	24	1	0	0	0	0	0	25	0	25	0	0	0	0	0	25
11:30 AM --- 11:45 AM	0	21	1	0	0	0	0	0	22	0	22	1	0	0	0	0	23
11:45 AM --- 12:00 PM	0	13	0	0	0	0	0	0	13	0	28	4	0	0	0	0	32
12:00 PM --- 12:15 PM	0	22	0	0	0	0	0	0	22	0	22	1	0	0	0	0	23
12:15 PM --- 12:30 PM	0	16	0	1	0	0	0	0	17	0	21	0	0	1	0	0	22
12:30 PM --- 12:45 PM	0	24	0	0	0	0	0	0	24	0	20	0	0	0	0	0	20
12:45 PM --- 01:00 PM	0	16	0	0	0	0	0	0	16	0	18	1	0	0	0	0	19
01:00 PM --- 01:15 PM	0	19	0	0	0	0	0	0	19	0	24	0	0	0	0	0	24
01:15 PM --- 01:30 PM	0	15	0	0	0	0	0	0	15	0	25	1	0	0	0	0	26
01:30 PM --- 01:45 PM	0	23	0	0	0	1	0	0	24	0	24	0	0	0	0	0	24
01:45 PM --- 02:00 PM	0	27	2	0	0	0	0	0	29	0	14	2	0	0	0	0	16
02:00 PM --- 02:15 PM	0	17	0	0	0	0	0	0	17	0	28	1	0	0	0	0	29
02:15 PM --- 02:30 PM	0	41	0	0	0	0	0	0	41	0	35	1	0	0	0	0	36
02:30 PM --- 02:45 PM	0	29	0	0	0	0	0	0	29	0	32	2	0	0	0	0	34
02:45 PM --- 03:00 PM	0	17	0	0	0	0	0	0	17	0	41	0	0	0	0	0	41
03:00 PM --- 03:15 PM	0	32	1	0	0	0	0	0	33	1	31	3	0	0	0	0	35
03:15 PM --- 03:30 PM	0	40	0	0	0	0	0	0	40	0	29	0	0	0	0	0	29
03:30 PM --- 03:45 PM	0	24	1	0	0	0	0	0	25	0	31	1	0	1	0	0	33
03:45 PM --- 04:00 PM	0	19	0	0	0	0	0	0	19	0	29	0	0	0	0	0	29
04:00 PM --- 04:15 PM	0	40	2	0	0	0	0	0	42	0	38	4	0	0	0	0	42
04:15 PM --- 04:30 PM	0	15	0	0	0	0	0	0	15	0	27	1	0	0	0	0	28
04:30 PM --- 04:45 PM	0	31	0	0	0	0	0	0	31	0	33	2	0	0	0	0	35
04:45 PM --- 05:00 PM	0	13	1	0	0	0	0	0	14	0	21	0	0	0	0	0	21
05:00 PM --- 05:15 PM	0	20	2	0	0	0	0	0	22	1	36	0	0	0	0	0	37
05:15 PM --- 05:30 PM	0	23	0	0	0	0	0	0	23	0	21	1	0	0	0	0	22
05:30 PM --- 05:45 PM	0	26	3	0	0	0	0	0	29	0	13	3	0	0	0	0	16
05:45 PM --- 06:00 PM	0	42	0	0	0	0	0	0	42	0	28	3	0	0	0	0	31
06:00 PM --- 06:15 PM	1	20	2	0	0	0	0	0	23	0	30	1	0	0	0	0	31
06:15 PM --- 06:30 PM	0	14	2	0	0	0	0	0	16	0	13	0	0	0	0	0	13
06:30 PM --- 06:45 PM	0	17	1	0	0	0	0	0	18	0	26	1	0	0	0	0	27
06:45 PM --- 07:00 PM	0	16	2	0	0	0	0	0	18	0	17	1	0	0	0	0	18
07:00 PM --- 07:15 PM	0	9	0	0	0	0	0	0	9	0	22	1	0	0	0	0	23
07:15 PM --- 07:30 PM	0	16	1	0	0	0	0	0	17	0	16	1	0	0	0	0	17
07:30 PM --- 07:45 PM	0	9	0	0	0	0	0	0	9								

10:15 PM ---- 10:30 PM	0	4	0	0	0	0	0	4	0	1	1	0	0	0	0	2	
10:30 PM ---- 10:45 PM	0	4	0	0	0	0	0	4	0	3	0	0	0	0	0	3	
10:45 PM ---- 11:00 PM	0	4	0	0	0	0	0	4	0	3	0	0	0	0	0	3	
11:00 PM ---- 11:15 PM	0	3	0	0	0	0	0	3	0	2	0	0	0	0	0	2	
11:15 PM ---- 11:30 PM	0	1	0	0	0	0	0	1	0	4	0	0	0	0	0	4	
11:30 PM ---- 11:45 PM	0	2	0	0	0	0	0	2	0	3	0	0	0	0	0	3	
11:45 PM ---- 12:00 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	
<b>CLASSIFICATION</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	
<b>DAILY VOLUME</b>	<b>5</b>	<b>1,339</b>	<b>34</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>1,388</b>	<b>3</b>	<b>1,428</b>	<b>72</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1,511</b>	
<b>PERCENTAGE</b>	<b>0.36</b>	<b>96.47</b>	<b>2.45</b>	<b>0.29</b>	<b>0.22</b>	<b>0.22</b>	<b>0.00</b>	<b>100</b>	<b>0.20</b>	<b>94.51</b>	<b>4.77</b>	<b>0.07</b>	<b>0.26</b>	<b>0.13</b>	<b>0.07</b>	<b>100</b>	
<i>Telephone : (510) 232-1271</i>									<i>Fax : (510) 232-1272</i>								
<b>NORTHBOUND</b>									<b>SOUTHBOUND</b>								
<b>From</b>	<b>To</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>
<b>HOURLY</b>									<b>TOTALS</b>								
12:00 AM ---- 01:00 AM	0	7	0	0	0	0	0	7	0	3	0	0	0	0	0	0	3
12:15 AM ---- 01:15 AM	0	5	0	0	0	0	0	5	1	2	0	0	0	0	0	0	3
12:30 AM ---- 01:30 AM	0	2	0	0	0	0	0	2	1	1	0	0	0	0	0	0	2
12:45 AM ---- 01:45 AM	0	2	0	0	0	0	0	2	1	2	0	0	0	0	0	0	3
01:00 AM ---- 02:00 AM	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
01:15 AM ---- 02:15 AM	0	1	0	0	0	0	0	1	0	3	0	0	0	0	0	0	3
01:30 AM ---- 02:30 AM	0	1	0	0	0	0	0	1	0	3	0	0	0	0	0	0	3
01:45 AM ---- 02:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:00 AM ---- 03:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:15 AM ---- 03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM ---- 03:30 AM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
02:45 AM ---- 03:45 AM	0	2	0	0	0	0	0	2	0	1	1	0	0	0	0	0	2
03:00 AM ---- 04:00 AM	0	3	0	0	0	0	0	3	0	1	1	0	0	0	0	0	2
03:15 AM ---- 04:15 AM	0	4	0	0	0	0	0	4	0	2	1	0	0	0	0	0	3
03:30 AM ---- 04:30 AM	0	4	0	0	0	0	0	4	0	8	1	0	0	0	0	0	9
03:45 AM ---- 04:45 AM	0	7	0	0	0	0	0	7	0	10	0	0	0	0	0	0	10
04:00 AM ---- 05:00 AM	0	8	0	0	0	0	0	8	0	11	0	0	0	0	0	0	11
04:15 AM ---- 05:15 AM	0	9	0	0	0	0	0	9	0	13	0	0	0	0	0	0	13
04:30 AM ---- 05:30 AM	0	12	0	0	0	0	0	12	0	14	0	0	0	0	0	0	14
04:45 AM ---- 05:45 AM	0	12	0	0	0	0	0	12	0	15	0	0	0	0	0	0	15
05:00 AM ---- 06:00 AM	0	14	0	0	1	0	0	15	0	20	2	1	0	0	0	0	23
05:15 AM ---- 06:15 AM	0	19	0	0	1	0	0	20	0	20	2	1	0	0	0	0	23
05:30 AM ---- 06:30 AM	0	16	0	1	1	0	0	18	0	17	2	1	0	0	0	0	20
05:45 AM ---- 06:45 AM	0	18	0	1	1	0	0	20	0	23	2	1	0	0	0	0	26
06:00 AM ---- 07:00 AM	0	25	0	1	0	0	0	26	0	25	2	0	0	0	0	0	27
06:15 AM ---- 07:15 AM	0	28	1	1	0	0	0	30	0	33	4	0	0	0	0	0	37
06:30 AM ---- 07:30 AM	0	34	1	0	0	0	0	35	0	42	6	0	0	0	0	0	48
06:45 AM ---- 07:45 AM	0	49	2	0	0	0	0	51	0	57	6	0	0	0	0	0	63
07:00 AM ---- 08:00 AM	0	100	2	0	0	1	0	103	0	103	5	0	0	0	0	0	108
07:15 AM ---- 08:15 AM	3	171	4	1	0	1	0	180	0	154	6	0	2	2	0	0	164
07:30 AM ---- 08:30 AM	3	189	4	1	0	1	0	198	0	165	7	0	2	2	0	0	176
07:45 AM ---- 08:45 AM	3	194	3	1	0	1	0	202	0	158	9	0	2	2	0	0	171
08:00 AM ---- 09:00 AM	3	166	3	1	0	0	0	173	0	122	8	0	2	2	0	0	134
08:15 AM ---- 09:15 AM	0	101	0	0	2	0	0	103	0	79	5	0	0	0	1	0	85
08:30 AM ---- 09:30 AM	0	96	0	0	2	0	0	98	0	68	3	0	0	0	1	0	72
08:45 AM ---- 09:45 AM	0	85	2	1	2	0	0	90	0	65	1	0	0	0	1	0	67
09:00 AM ---- 10:00 AM	1	71	3	1	2	0	0	78	0	70	1	0	0	0	1	0	72
09:15 AM ---- 10:15 AM	1	74	4	1	0	0	0	80	0	75	2	0	0	0	0	0	77
09:30 AM ---- 10:30 AM	1	70	4	1	0	1	0	77	0	82	1	0	0	0	0	0	83
09:45 AM ---- 10:45 AM	1	74	2	0	0	1	0	78	0	95	4	0	0	0	0	0	99
10:00 AM ---- 11:00 AM	0	72	3	0	0	1	0	76	0	108	6	0	0	0	0	0	114
10:15 AM ---- 11:15 AM	0	71	2	0	0	1	0	74	0	111	9	0	0	0	0	0	120
10:30 AM ---- 11:30 AM	0	78	3	0	0	0	0	81	0	116	9	0	0	0	0	0	125
10:45 AM ---- 11:45 AM	0	81	4	0	0	0	0	85	0	110	7	0	0	0	0	0	117
11:00 AM ---- 12:00 PM	0	76	2	0	0	0	0	78	0	102	9	0	0	0	0	0	111
11:15 AM ---- 12:15 PM	0	80	2	0	0	0	0	82	0	97	6	0	0	0	0	0	103
11:30 AM ---- 12:30 PM	0	72	1	1	0	0	0	74	0	93	6	0	1	0	0	0	100
11:45 AM ---- 12:45 PM	0	75	0	1	0	0	0	76	0	91	5	0	1	0	0	0	97
12:00 PM ---- 01:00 PM	0	78	0	1	0	0	0	79	0	81	2	0	1	0	0	0	84
12:15 PM ---- 01:15 PM	0	75	0	1	0	0	0	76	0	83	1	0	1	0	0	0	85
12:30 PM ---- 01:30 PM	0	74	0	0	0	0	0	74	0	87	2	0	0	0	0	0	89
12:45 PM ---- 01:45 PM	0	73	0	0	0	1	0	74	0	91	2	0	0	0	0	0	93
01:00 PM ---- 02:00 PM	0	84	2	0	0	1	0	87	0	87	3	0	0	0	0	0	90
01:15 PM ---- 02:15 PM	0	82	2	0	0	1	0	85	0	91	4	0	0	0	0	0	95
01:30 PM ---- 02:30 PM	0	108	2	0	0	1	0	111	0	101	4	0	0	0	0	0	105
01:45 PM ---- 02:45 PM	0	114	2	0	0	0	0	116	0	109	6	0	0	0	0	0	115
02:00 PM ---- 03:00 PM	0	104	0	0	0	0	0	104	0	136	4	0	0	0	0	0	140
02:15 PM ---- 03:15 PM	0	119	1	0	0	0	0	120	1	139	6	0	0	0	0	0	146
02:30 PM ---- 03:30 PM	0	118	1	0	0	0	0	119	1	133	5	0	0	0	0	0	139
02:45 PM ---- 03:45 PM	0	113	2	0	0	0	0	115	1	132	4	0	1	0	0	0	138
03:00 PM ---- 04:00 PM	0	115	2	0	0	0	0	117	1	120	4	0	1	0	0	0	126
03:15 PM ---- 04:15 PM	0	123	3	0	0	0	0	126	0	127	5	0	1	0	0	0	133
03:30 PM ---- 04:30 PM	0	98	3	0	0	0	0	101	0	125	6	0	1	0	0	0	132
03:45 PM ---- 04:45 PM	0	105	2	0	0	0	0	107	0	127	7	0	0	0	0	0	134
04:00 PM ---- 05:00 PM	0	99	3	0	0	0	0	102	0	119	7	0	0	0	0	0	126
04:15 PM ---- 05:15 PM	0	79	3	0	0	0	0	82	1	117	3	0	0	0	0	0	121
04:30 PM ---- 05:30 PM	0	87	3	0	0	0	0	90	1	111	3	0	0	0	0	0	115
04:45 PM ---- 05:45 PM	0	82	6	0	0	0	0	88	1	91	4	0	0	0	0	0	96
05:00 PM ---- 06:00 PM	0	111	5	0	0	0	0	116	1	98	7	0	0	0	0	0	106
05:15 PM ---- 06:15 PM	1	111	5	0	0	0	0	117	0	92	8	0	0	0	0	0	100
05:30 PM ---- 06:30 PM	1	102	7	0	0	0	0	110	0	84	7	0	0	0	0	0	91
05:45 PM ---- 06:45 PM	1	93	5	0	0	0	0	99	0	97	5	0	0	0	0	0	102
06:00 PM ---- 07:00 PM	1	67	7	0	0	0	0	75	0	86	3	0	0	0	0	0	89
06:15 PM ---- 07:15 PM	0	56	5	0	0	0	0	61	0	78	3	0	0	0	0	0	81
06:30 PM ---- 07:30 PM	0	58	4	0	0	0	0	62	0	81	4	0	0	0	0	0	85
06:45 PM ---- 07:45 PM	0	50	3	0	0	0	0	53	0	64	3	0	0	0	0	0	67
07:00 PM ---- 08:00 PM	0	54	2	0	0	0	0	56	0	55	3	0	0	0	0	0	58
07:15 PM ---- 08:15 PM	0	50	2	0	0	0	0	52	0	60	5	0	0	0	0	0	65
07:30 PM ---- 08:30 PM	0	44	1	0	0	0	0	45	0	48	5	0	0	0	0	0	53
07:45 PM ---- 08:45 PM	0	41	1	0	0	0	0	42	0	50	5	0	0	0	0	0	55
08:00 PM ---- 09:00 PM	0	28	0	0	0	0	0	28	0	46	4	0	0				

# BAYMETRICS

## VEHICLE CLASSIFICATION SUMMARY

<b>PROJECT:</b>	TRAFFIC COUNTS IN TRACY	<b>SURVEY DATE:</b>	9/25/2014	<b>SURVEY DAY:</b>	Thursday
<b>LOCATION</b>	B. On Bessie Avenue, between Beverly Place & Eaton Avenue	<b>SURVEY TIME:</b>	12:00 AM TO	12:00 AM	
<b>JURISDICTION:</b>	TRACY	<b>FILE:</b>	3409111-Bessie Av		

SUMMARY																	
DIRECTION: NORTHBOUND									DIRECTION: SOUTHBOUND								
CLASSIFICATION	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	VOLUME	
PEAK	AM	0	167	2	0	0	0	1	170	1	201	10	0	1	3	1	217
		0	98.2352941	1.17647059	0	0	0	0.58823529	100	0.46082949	92.6267281	4.60829493	0	0.46082949	1.38248848	0.46082949	100
HOURLY	MD	2	116	3	1	0	0	0	122	0	125	9	0	0	0	0	134
		1.639344262	95.0819672	2.45901639	0.81967213	0	0	0	100	0	93.2835821	6.71641791	0	0	0	0	100
	PM	0	132	4	0	0	0	0	136	0	148	11	0	1	0	0	160
		0	97.0588235	2.94117647	0	0	0	0	100	0	92.5	6.875	0	0.625	0	0	100
EVEN		0	51	2	0	0	0	0	53	1	58	2	0	0	0	0	61
		0	96.2264151	3.77358491	0	0	0	0	100	1.63934426	95.0819672	3.27868852	0	0	0	0	100

DIRECTION: NORTHBOUND									DIRECTION: SOUTHBOUND								
From	To	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES	MOTO	AUTO	2-AXLE	3-AXLE	4-AXLE	5-AXLE	>5-AXLE	TOTAL VOLUMES

### 15 MIN TOTALS

12:00 AM --- 12:15 AM	0	2	0	0	0	0	0	0	2	0	1	0	0	0	0	0	1
12:15 AM --- 12:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
12:30 AM --- 12:45 AM	0	3	0	0	0	0	0	0	3	0	1	0	0	0	0	0	1
12:45 AM --- 01:00 AM	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
01:00 AM --- 01:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
01:15 AM --- 01:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
01:30 AM --- 01:45 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
01:45 AM --- 02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM --- 02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM --- 02:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
02:30 AM --- 02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM --- 03:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
03:00 AM --- 03:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:15 AM --- 03:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:30 AM --- 03:45 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3
03:45 AM --- 04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM --- 04:15 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04:15 AM --- 04:30 AM	0	1	0	0	0	0	0	0	1	0	4	0	0	0	0	0	4
04:30 AM --- 04:45 AM	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
04:45 AM --- 05:00 AM	0	4	0	0	0	0	0	0	4	0	2	0	0	0	0	0	2
05:00 AM --- 05:15 AM	0	1	0	0	0	0	0	0	1	0	4	0	0	0	0	0	4
05:15 AM --- 05:30 AM	0	4	0	0	0	0	0	0	4	0	5	0	0	0	0	0	5
05:30 AM --- 05:45 AM	0	2	0	0	0	0	0	0	2	0	5	0	0	0	0	0	5
05:45 AM --- 06:00 AM	0	2	0	0	0	0	0	0	2	0	3	0	0	0	0	0	3
06:00 AM --- 06:15 AM	0	3	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3
06:15 AM --- 06:30 AM	0	2	0	0	0	0	0	0	2	0	5	0	0	0	0	0	5
06:30 AM --- 06:45 AM	0	2	0	0	0	0	0	0	2	0	8	1	0	0	0	0	9
06:45 AM --- 07:00 AM	0	8	0	0	0	0	0	0	8	0	9	4	0	0	0	0	13
07:00 AM --- 07:15 AM	0	9	1	0	0	0	0	0	10	0	16	1	0	0	0	0	17
07:15 AM --- 07:30 AM	0	7	1	0	0	0	0	0	8	0	11	0	0	0	0	0	11
07:30 AM --- 07:45 AM	0	24	1	0	1	0	0	0	26	0	30	2	0	0	0	1	33
07:45 AM --- 08:00 AM	0	61	0	0	0	0	1	0	62	0	57	3	0	1	0	0	61
08:00 AM --- 08:15 AM	0	45	2	0	0	0	0	0	47	1	94	2	0	0	2	0	99
08:15 AM --- 08:30 AM	0	31	0	0	0	0	0	0	31	0	20	3	0	0	1	0	24
08:30 AM --- 08:45 AM	0	30	0	0	0	0	0	0	30	0	18	0	0	0	0	0	18
08:45 AM --- 09:00 AM	0	25	0	0	0	0	0	0	25	0	27	3	0	0	0	0	30
09:00 AM --- 09:15 AM	0	20	2	0	0	0	0	0	22	0	25	0	0	0	0	0	25
09:15 AM --- 09:30 AM	0	26	0	0	0	0	0	0	26	0	16	0	0	0	0	0	16
09:30 AM --- 09:45 AM	0	10	3	0	0	0	0	0	13	0	14	0	0	0	1	0	15
09:45 AM --- 10:00 AM	0	13	1	0	0	0	0	0	14	0	19	2	0	0	0	0	21
10:00 AM --- 10:15 AM	0	26	1	0	0	0	0	0	27	0	19	0	1	0	0	0	20
10:15 AM --- 10:30 AM	0	18	0	0	0	0	0	0	18	0	18	2	0	0	0	0	20
10:30 AM --- 10:45 AM	0	18	0	0	0	0	0	0	18	0	21	1	0	0	0	0	22
10:45 AM --- 11:00 AM	0	25	0	0	1	0	0	0	26	0	21	0	0	0	0	0	21
11:00 AM --- 11:15 AM	0	26	0	0	0	0	0	0	26	0	21	0	0	0	0	0	21
11:15 AM --- 11:30 AM	0	24	0	0	0	0	0	0	24	0	28	1	0	0	0	0	29
11:30 AM --- 11:45 AM	0	24	1	0	0	0	0	0	25	0	18	1	0	0	0	0	19
11:45 AM --- 12:00 PM	0	15	0	0	0	0	0	0	15	0	18	1	0	0	0	0	19
12:00 PM --- 12:15 PM	0	14	1	0	0	0	0	0	15	0	26	2	0	0	0	0	28
12:15 PM --- 12:30 PM	0	16	0	0	0	0	0	0	16	0	24	2	0	0	0	0	26
12:30 PM --- 12:45 PM	0	25	2	0	0	0	0	0	27	0	22	3	0	0	0	0	25
12:45 PM --- 01:00 PM	0	31	0	0	0	0	0	0	31	0	14	3	0	0	0	0	17
01:00 PM --- 01:15 PM	0	14	0	0	0	0	0	0	14	0	27	2	0	0	0	0	29
01:15 PM --- 01:30 PM	0	20	0	0	0	0	0	0	20	0	19	1	0	0	0	0	20
01:30 PM --- 01:45 PM	1	21	1	0	0	0	0	0	23	0	17	1	0	0	0	0	18
01:45 PM --- 02:00 PM	0	24	0	0	0	0	0	0	24	0	29	1	0	0	0	0	30
02:00 PM --- 02:15 PM	0	27	1	1	0	0	0	0	29	0	30	1	0	0	0	0	31
02:15 PM --- 02:30 PM	1	44	1	0	0	0	0	0	46	0	29	2	0	0	0	0	31
02:30 PM --- 02:45 PM	0	20	0	0	0	0	0	0	20	0	37	5	0	0	0	0	42
02:45 PM --- 03:00 PM	0	26	0	0	2	0	0	0	28	0	37	2	0	1	0	0	40
03:00 PM --- 03:15 PM	0	37	2	0	0	0	0	0	39	0	32	1	0	0	0	0	33
03:15 PM --- 03:30 PM	0	33	2	0	0	0	0	0	35	0	42	3	0	0	0	0	45
03:30 PM --- 03:45 PM	0	33	0	0	0	0	0	0	33	0	27	1	0	0	0	0	28
03:45 PM --- 04:00 PM	0	29	0	0	0	0	0	0	29	0	32	3	0	0	0	0	35
04:00 PM --- 04:15 PM	0	33	2	0	0	0	0	0	35	0	41	2	0	0	0	0	43
04:15 PM --- 04:30 PM	0	16	0	0	0	0	0	0	16	0	29	2	0	0	0	0	31
04:30 PM --- 04:45 PM	0	22	0	0	0	0	0	0	22	0	23	2	0	0	0	0	25
04:45 PM --- 05:00 PM	0	20	1	0	0	0	0	0	21	0	30	1	0	0	0	0	31
05:00 PM --- 05:15 PM	0	19	1	0	0	0	0	0	20	0	28	1	0	0	1	0	30
05:15 PM --- 05:30 PM	0	23	1	0	0	0	0	0	24	0	28	2	0	0	0	0	30
05:30 PM --- 05:45 PM	0	28	0	0	0	0	0	0	28	0	22	0	0	0	0	0	22
05:45 PM --- 06:00 PM	0	22	1	0	0	0	0	0	23	0	20	1	0	0	0	0	21
06:00 PM --- 06:15 PM	0	10	0	0	0	0	0	0	10	0	24	1	0	0	0	0	25
06:15 PM --- 06:30 PM	0	21	0	0	0	0	0	0	21	0	10	0	0	0	0	0	10
06:30 PM --- 06:45 PM	0	12	1	0	0	0	0	0	13	0	23	1	0	0	0	0	24
06:45 PM --- 07:00 PM	0	8	0	0	0	0	0	0	8	0	11	0	0	0	0	0	11
07:00 PM --- 07:15 PM	0	18	1	0	0	0	0	0	19	1	10	0	0	0	0	0	11
07:15 PM --- 07:30 PM	0	8	0	0	0	0	0	0	8	0	15	1	0	0	0	0	16

10:15 PM ---- 10:30 PM	0	3	0	0	0	0	0	3	0	2	0	0	0	0	0	2	
10:30 PM ---- 10:45 PM	0	2	0	0	0	0	0	2	0	1	0	0	0	0	0	1	
10:45 PM ---- 11:00 PM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	
11:00 PM ---- 11:15 PM	0	4	0	0	0	0	0	4	0	1	0	0	0	0	0	1	
11:15 PM ---- 11:30 PM	0	2	0	0	0	0	0	2	0	1	0	0	0	0	0	1	
11:30 PM ---- 11:45 PM	0	1	0	0	0	0	0	1	0	6	0	0	0	0	0	6	
11:45 PM ---- 12:00 AM	0	4	0	0	0	0	0	4	1	1	0	0	0	0	0	2	
<b>CLASSIFICATION</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>VOLUME</b>	
<b>DAILY VOLUME</b>	<b>4</b>	<b>1,294</b>	<b>33</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>1,337</b>	<b>6</b>	<b>1,425</b>	<b>80</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>1,520</b>	
<b>PERCENTAGE</b>	<b>0.30</b>	<b>96.78</b>	<b>2.47</b>	<b>0.07</b>	<b>0.30</b>	<b>0.00</b>	<b>0.07</b>	<b>100</b>	<b>0.39</b>	<b>93.75</b>	<b>5.26</b>	<b>0.07</b>	<b>0.13</b>	<b>0.33</b>	<b>0.07</b>	<b>100</b>	
<i>Telephone : (510) 232-1271</i>									<i>Fax : (510) 232-1272</i>								
<b>NORTHBOUND</b>									<b>SOUTHBOUND</b>								
<b>From</b>	<b>To</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>	<b>MOTO</b>	<b>AUTO</b>	<b>2-AXLE</b>	<b>3-AXLE</b>	<b>4-AXLE</b>	<b>5-AXLE</b>	<b>&gt;5-AXLE</b>	<b>TOTAL VOLUMES</b>
<b>HOURLY</b>									<b>TOTALS</b>								
12:00 AM ---- 12:15 AM	0	8	0	0	0	0	0	8	0	5	0	0	0	0	0	0	5
12:15 AM ---- 01:15 AM	0	6	0	0	0	0	0	6	0	5	0	0	0	0	0	0	5
12:30 AM ---- 01:30 AM	0	6	0	0	0	0	0	6	1	2	0	0	0	0	0	0	3
12:45 AM ---- 01:45 AM	0	4	0	0	0	0	0	4	1	2	0	0	0	0	0	0	3
01:00 AM ---- 02:00 AM	0	1	0	0	0	0	0	1	1	2	0	0	0	0	0	0	3
01:15 AM ---- 02:15 AM	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	2
01:30 AM ---- 02:30 AM	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2
01:45 AM ---- 02:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:00 AM ---- 03:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
02:15 AM ---- 03:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
02:30 AM ---- 03:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
02:45 AM ---- 03:45 AM	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7
03:00 AM ---- 04:00 AM	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5
03:15 AM ---- 04:15 AM	0	1	0	0	0	0	0	1	0	3	1	0	0	0	0	0	4
03:30 AM ---- 04:30 AM	0	2	0	0	0	0	0	2	0	6	1	0	0	0	0	0	7
03:45 AM ---- 04:45 AM	0	4	0	0	0	0	0	4	0	4	0	0	0	0	0	0	4
04:00 AM ---- 05:00 AM	0	8	0	0	0	0	0	8	0	6	0	0	0	0	0	0	6
04:15 AM ---- 05:15 AM	0	8	0	0	0	0	0	8	0	10	0	0	0	0	0	0	10
04:30 AM ---- 05:30 AM	0	11	0	0	0	0	0	11	0	11	0	0	0	0	0	0	11
04:45 AM ---- 05:45 AM	0	11	0	0	0	0	0	11	0	16	0	0	0	0	0	0	16
05:00 AM ---- 06:00 AM	0	9	0	0	0	0	0	9	0	17	0	0	0	0	0	0	17
05:15 AM ---- 06:15 AM	0	11	0	0	0	0	0	11	0	16	0	0	0	0	0	0	16
05:30 AM ---- 06:30 AM	0	9	0	0	0	0	0	9	0	16	0	0	0	0	0	0	16
05:45 AM ---- 06:45 AM	0	9	0	0	0	0	0	9	0	19	1	0	0	0	0	0	20
06:00 AM ---- 07:00 AM	0	15	0	0	0	0	0	15	0	25	5	0	0	0	0	0	30
06:15 AM ---- 07:15 AM	0	21	1	0	0	0	0	22	0	38	6	0	0	0	0	0	44
06:30 AM ---- 07:30 AM	0	26	2	0	0	0	0	28	0	44	6	0	0	0	0	0	50
06:45 AM ---- 07:45 AM	0	48	3	0	1	0	0	52	0	66	7	0	0	0	1	0	74
07:00 AM ---- 08:00 AM	0	101	3	0	1	0	1	106	0	114	6	0	1	0	1	0	122
07:15 AM ---- 08:15 AM	0	137	4	0	1	0	1	143	1	192	7	0	1	2	1	0	204
07:30 AM ---- 08:30 AM	0	161	3	0	1	0	1	166	1	201	10	0	1	3	1	0	217
07:45 AM ---- 08:45 AM	0	167	2	0	0	0	1	170	1	189	8	0	1	3	0	0	202
08:00 AM ---- 09:00 AM	0	131	2	0	0	0	0	133	1	159	8	0	0	3	0	0	171
08:15 AM ---- 09:15 AM	0	106	2	0	0	0	0	108	0	90	6	0	0	1	0	0	97
08:30 AM ---- 09:30 AM	0	101	2	0	0	0	0	103	0	86	3	0	0	0	0	0	89
08:45 AM ---- 09:45 AM	0	81	5	0	0	0	0	86	0	82	3	0	0	1	0	0	86
09:00 AM ---- 10:00 AM	0	69	6	0	0	0	0	75	0	74	2	0	0	1	0	0	77
09:15 AM ---- 10:15 AM	0	75	5	0	0	0	0	80	0	68	2	1	0	1	0	0	72
09:30 AM ---- 10:30 AM	0	67	5	0	0	0	0	72	0	70	4	1	0	1	0	0	76
09:45 AM ---- 10:45 AM	0	75	2	0	0	0	0	77	0	77	5	1	0	0	0	0	83
10:00 AM ---- 11:00 AM	0	87	1	0	1	0	0	89	0	79	3	1	0	0	0	0	83
10:15 AM ---- 11:15 AM	0	87	0	0	1	0	0	88	0	81	3	0	0	0	0	0	84
10:30 AM ---- 11:30 AM	0	93	0	0	1	0	0	94	0	91	2	0	0	0	0	0	93
10:45 AM ---- 11:45 AM	0	99	1	0	1	0	0	101	0	88	2	0	0	0	0	0	90
11:00 AM ---- 12:00 PM	0	89	1	0	0	0	0	90	0	85	3	0	0	0	0	0	88
11:15 AM ---- 12:15 PM	0	77	2	0	0	0	0	79	0	90	5	0	0	0	0	0	95
11:30 AM ---- 12:30 PM	0	69	2	0	0	0	0	71	0	86	6	0	0	0	0	0	92
11:45 AM ---- 12:45 PM	0	70	3	0	0	0	0	73	0	90	8	0	0	0	0	0	98
12:00 PM ---- 01:00 PM	0	86	3	0	0	0	0	89	0	86	10	0	0	0	0	0	96
12:15 PM ---- 01:15 PM	0	86	2	0	0	0	0	88	0	87	10	0	0	0	0	0	97
12:30 PM ---- 01:30 PM	0	90	2	0	0	0	0	92	0	82	9	0	0	0	0	0	91
12:45 PM ---- 01:45 PM	1	86	1	0	0	0	0	88	0	77	7	0	0	0	0	0	84
01:00 PM ---- 02:00 PM	1	79	1	0	0	0	0	81	0	92	5	0	0	0	0	0	97
01:15 PM ---- 02:15 PM	1	92	2	1	0	0	0	96	0	95	4	0	0	0	0	0	99
01:30 PM ---- 02:30 PM	2	116	3	1	0	0	0	122	0	105	5	0	0	0	0	0	110
01:45 PM ---- 02:45 PM	1	115	2	1	0	0	0	119	0	125	9	0	0	0	0	0	134
02:00 PM ---- 03:00 PM	1	117	2	1	2	0	0	123	0	133	10	0	1	0	0	0	144
02:15 PM ---- 03:15 PM	1	127	3	0	2	0	0	133	0	135	10	0	1	0	0	0	146
02:30 PM ---- 03:30 PM	0	116	4	0	2	0	0	122	0	148	11	0	1	0	0	0	160
02:45 PM ---- 03:45 PM	0	129	4	0	2	0	0	135	0	138	7	0	1	0	0	0	146
03:00 PM ---- 04:00 PM	0	132	4	0	0	0	0	136	0	133	8	0	0	0	0	0	141
03:15 PM ---- 04:15 PM	0	128	4	0	0	0	0	132	0	142	9	0	0	0	0	0	151
03:30 PM ---- 04:30 PM	0	111	2	0	0	0	0	113	0	129	8	0	0	0	0	0	137
03:45 PM ---- 04:45 PM	0	100	2	0	0	0	0	102	0	125	9	0	0	0	0	0	134
04:00 PM ---- 05:00 PM	0	91	3	0	0	0	0	94	0	123	7	0	0	0	0	0	130
04:15 PM ---- 05:15 PM	0	77	2	0	0	0	0	79	0	110	6	0	0	1	0	0	117
04:30 PM ---- 05:30 PM	0	84	3	0	0	0	0	87	0	109	6	0	0	1	0	0	116
04:45 PM ---- 05:45 PM	0	90	3	0	0	0	0	93	0	108	4	0	0	1	0	0	113
05:00 PM ---- 06:00 PM	0	92	3	0	0	0	0	95	0	98	4	0	0	1	0	0	103
05:15 PM ---- 06:15 PM	0	83	2	0	0	0	0	85	0	94	4	0	0	0	0	0	98
05:30 PM ---- 06:30 PM	0	81	1	0	0	0	0	82	0	76	2	0	0	0	0	0	78
05:45 PM ---- 06:45 PM	0	65	2	0	0	0	0	67	0	77	3	0	0	0	0	0	80
06:00 PM ---- 07:00 PM	0	51	1	0	0	0	0	52	0	68	2	0	0	0	0	0	70
06:15 PM ---- 07:15 PM	0	59	2	0	0	0	0	61	1	54	1	0	0	0	0	0	56
06:30 PM ---- 07:30 PM	0	46	2	0	0	0	0	48	1	59	2	0	0	0	0	0	62
06:45 PM ---- 07:45 PM	0	48	2	0	0	0	0	50	1	52	2	0	0	0	0	0	55
07:00 PM ---- 08:00 PM	0	51	2	0	0	0	0	53	1	58	2	0	0	0	0	0	61
07:15 PM ---- 08:15 PM	0	40	2	0	0	0	0	42	0	58	2	0	0	0	0	0	60
07:30 PM ---- 08:30 PM	0	40	2	0	0	0	0	42	1	50	2	0	0	0	0	0	53
07:45 PM ---- 08:45 PM	0	32	1	0	0	0	0	33	1	39	1	0	0	0	0	0	41
08:00 PM ---- 09:00 PM	0	32	1	0	0	0	0	33	1	28	2	0	0	0	0	0	



# BAYMETRICS

## SPEED SURVEY SUMMARY

PROJECT NAME:		TRAFFIC COUNTS IN TRACY													DATE:	9/24/2014	
PROJECT NUMBER:		3409111-SPD A													DAY:	WEDNESDAY	
LOCATION:		A. On Eaton Avenue, between Parker Avenue & Wall Street															
DIRECTION:		EAST BOUND															
JURISDICTION:		TRACY															
BEGIN TIME	TOTAL VOL	0-15 MPH	16-20 MPH	21-25 MPH	26-30 MPH	31-35 MPH	36-40 MPH	41-45 MPH	46-50 MPH	51-55 MPH	56-60 MPH	61-65 MPH	66-70 MPH	71-75 MPH	>75 MPH	AVG	
<b>SURVEY DATA</b>																	
0:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
0:15	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0		
0:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
0:45	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:00	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0		
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:30	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:15	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0		
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:45	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
4:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
5:00	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0		
5:15	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0		
5:30	5	0	0	3	1	0	1	0	0	0	0	0	0	0	0		
5:45	4	0	0	1	2	1	0	0	0	0	0	0	0	0	0		
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:15	3	0	0	2	0	1	0	0	0	0	0	0	0	0	0		
6:30	9	0	0	5	4	0	0	0	0	0	0	0	0	0	0		
6:45	5	0	0	2	3	0	0	0	0	0	0	0	0	0	0		
7:00	11	0	1	1	9	0	0	0	0	0	0	0	0	0	0		
7:15	22	1	2	2	15	2	0	0	0	0	0	0	0	0	0		
7:30	53	0	1	18	30	4	0	0	0	0	0	0	0	0	0		
7:45	49	5	12	17	11	3	1	0	0	0	0	0	0	0	0		
8:00	29	3	10	8	6	2	0	0	0	0	0	0	0	0	0		
8:15	19	0	1	7	11	0	0	0	0	0	0	0	0	0	0		
8:30	14	0	1	6	6	1	0	0	0	0	0	0	0	0	0		
8:45	12	1	0	6	5	0	0	0	0	0	0	0	0	0	0		
9:00	9	0	0	4	3	2	0	0	0	0	0	0	0	0	0		
9:15	8	0	0	5	2	1	0	0	0	0	0	0	0	0	0		
9:30	13	0	0	4	6	3	0	0	0	0	0	0	0	0	0		
9:45	10	0	0	3	6	0	1	0	0	0	0	0	0	0	0		
10:00	13	2	0	2	7	1	1	0	0	0	0	0	0	0	0		
10:15	15	1	2	4	8	0	0	0	0	0	0	0	0	0	0		
10:30	16	0	1	5	6	3	1	0	0	0	0	0	0	0	0		
10:45	14	1	0	5	7	1	0	0	0	0	0	0	0	0	0		
11:00	21	0	1	8	5	6	1	0	0	0	0	0	0	0	0		
11:15	18	0	0	5	9	3	1	0	0	0	0	0	0	0	0		
11:30	13	0	1	5	6	1	0	0	0	0	0	0	0	0	0		
11:45	29	0	1	8	13	6	0	0	0	1	0	0	0	0	0		
12:00	12	0	2	3	6	1	0	0	0	0	0	0	0	0	0		
12:15	10	0	3	3	3	1	0	0	0	0	0	0	0	0	0		
12:30	14	1	2	3	7	1	0	0	0	0	0	0	0	0	0		
12:45	18	1	2	6	6	2	1	0	0	0	0	0	0	0	0		
13:00	18	0	2	5	7	4	0	0	0	0	0	0	0	0	0		
13:15	18	0	1	11	5	1	0	0	0	0	0	0	0	0	0		
13:30	19	0	1	9	7	2	0	0	0	0	0	0	0	0	0		
13:45	24	2	4	9	7	2	0	0	0	0	0	0	0	0	0		
14:00	34	1	5	17	11	0	0	0	0	0	0	0	0	0	0		
14:15	24	1	2	7	11	2	1	0	0	0	0	0	0	0	0		
14:30	35	0	4	13	16	2	0	0	0	0	0	0	0	0	0		
14:45	49	3	7	20	17	1	1	0	0	0	0	0	0	0	0		
15:00	29	1	2	11	13	2	0	0	0	0	0	0	0	0	0		
15:15	36	2	2	8	15	8	1	0	0	0	0	0	0	0	0		
15:30	40	0	0	11	20	9	0	0	0	0	0	0	0	0	0		
15:45	69	0	2	15	38	14	0	0	0	0	0	0	0	0	0		
16:00	32	1	4	8	10	9	0	0	0	0	0	0	0	0	0		
16:15	34	0	0	9	20	5	0	0	0	0	0	0	0	0	0		
16:30	20	1	0	6	7	6	0	0	0	0	0	0	0	0	0		
16:45	53	3	6	16	21	7	0	0	0	0	0	0	0	0	0		
17:00	36	0	2	8	23	3	0	0	0	0	0	0	0	0	0		
17:15	31	0	6	11	9	5	0	0	0	0	0	0	0	0	0		
17:30	29	1	1	8	16	2	1	0	0	0	0	0	0	0	0		
17:45	33	3	2	11	12	3	2	0	0	0	0	0	0	0	0		
18:00	22	1	1	8	11	0	0	1	0	0	0	0	0	0	0		
18:15	19	0	1	6	10	2	0	0	0	0	0	0	0	0	0		
18:30	25	0	0	13	8	2	1	0	0	0	1	0	0	0	0		
18:45	19	0	2	3	10	3	1	0	0	0	0	0	0	0	0		
19:00	35	2	3	12	17	0	1	0	0	0	0	0	0	0	0		
19:15	15	2	1	8	3	1	0	0	0	0	0	0	0	0	0		
19:30	18	2	1	8	5	1	1	0	0	0	0	0	0	0	0		
19:45	9	0	0	4	3	2	0	0	0	0	0	0	0	0	0		
20:00	10	0	0	3	4	3	0	0	0	0	0	0	0	0	0		
20:15	8	0	1	5	2	0	0	0	0	0	0	0	0	0	0		
20:30	9	1	2	5	1	0	0	0	0	0	0	0	0	0	0		
20:45	7	2	2	1	2	0	0	0	0	0	0	0	0	0	0		
21:00	8	1	0	3	3	1	0	0	0	0	0	0	0	0	0		
21:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0		
21:30	7	1	0	3	2	1	0	0	0	0	0	0	0	0	0		
21:45	6	0	0	3	3	0	0	0	0	0	0	0	0	0	0		
22:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
22:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0		
22:30	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
22:45	3	0	0	0	2	1	0	0	0	0	0	0	0	0	0		
23:00	3	0	0	2	0	1	0	0	0	0	0	0	0	0	0		
23:15	4	0	0	1	2	1	0	0	0	0	0	0	0	0	0		
23:30	3	0	0	2	0	1	0	0	0	0	0	0	0	0	0		
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<b>SUMMARY</b>																	
TIME PERIOD	TOTAL VOL	0-15 MPH	16-20 MPH	21-25 MPH	26-30 MPH	31-35 MPH	36-40 MPH	41-45 MPH	46-50 MPH	51-55 MPH	56-60 MPH	61-65 MPH	66-70 MPH	71-75 MPH	>75 MPH	AVG MPH	
<b>HOURLY SPEED STATISTIC:</b>																	
00:00-01:00	6	0	2	1	3	0	0	0	0	0	0	0	0	0	0	24	
01:00-02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02:00-03:00	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	28	
03:00-04:00	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	38	
04:00-05:00	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	23	
05:00-06:00	14	0	0	5	6	2	1	0	0	0	0	0	0	0	0	28	
06:00-07:00	17	0	0	7	6	4	0	0	0	0	0	0	0	0	0	27	
07:00-08:00	135	6	16	38	65	9	1	0	0	0	0	0	0	0	0	25	
08:00-09:00	74	4	12	27	28	3											

# BAYMETRICS

## SPEED SURVEY SUMMARY

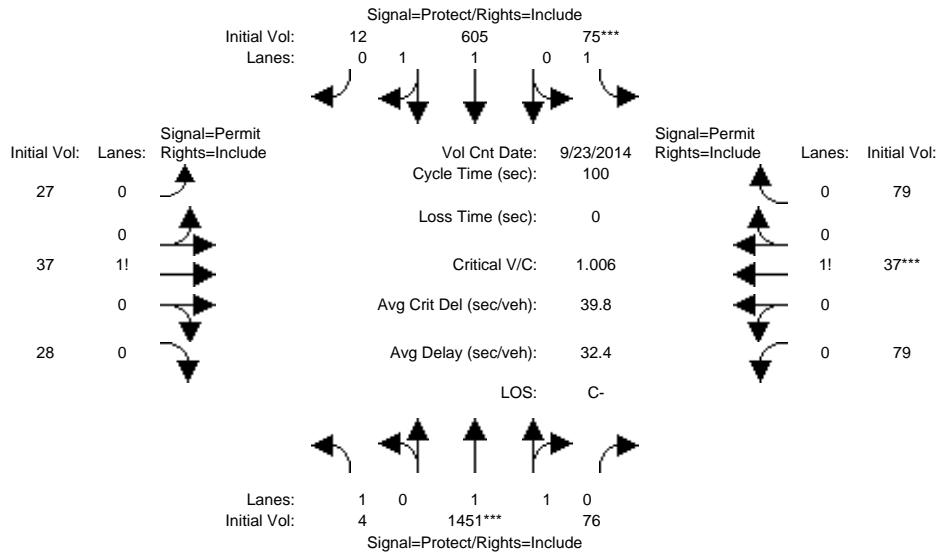
PROJECT NAME:		TRAFFIC COUNTS IN TRACY													DATE:	9/25/2014	
PROJECT NUMBER:		3409111-SPD A													DAY:	THURSDAY	
LOCATION:		A. On Eaton Avenue, between Parker Avenue & Wall Street															
DIRECTION:		EAST BOUND															
JURISDICTION:		TRACY															
BEGIN TIME	TOTAL VOL	0-15 MPH	16-20 MPH	21-25 MPH	26-30 MPH	31-35 MPH	36-40 MPH	41-45 MPH	46-50 MPH	51-55 MPH	56-60 MPH	61-65 MPH	66-70 MPH	71-75 MPH	>75 MPH	AVG	
SURVEY DATA																	
0:00	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0		
0:15	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0		
0:30	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0		
0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
1:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:15	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
2:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
2:45	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:15	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
3:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
3:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
4:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
4:45	4	0	1	0	1	1	0	1	0	0	0	0	0	0	0		
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0		
5:30	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0		
5:45	6	0	2	1	2	1	0	0	0	0	0	0	0	0	0		
6:00	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0		
6:15	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
6:30	6	0	0	3	1	2	0	0	0	0	0	0	0	0	0		
6:45	10	0	1	1	6	1	1	0	0	0	0	0	0	0	0		
7:00	7	0	2	1	2	2	0	0	0	0	0	0	0	0	0		
7:15	18	0	0	5	8	5	0	0	0	0	0	0	0	0	0		
7:30	59	0	6	13	29	10	1	0	0	0	0	0	0	0	0		
7:45	57	8	13	30	5	0	0	1	0	0	0	0	0	0	0		
8:00	36	3	8	11	12	2	0	0	0	0	0	0	0	0	0		
8:15	23	3	3	7	7	3	0	0	0	0	0	0	0	0	0		
8:30	14	0	0	8	4	2	0	0	0	0	0	0	0	0	0		
8:45	9	0	0	3	2	3	1	0	0	0	0	0	0	0	0		
9:00	9	1	0	4	3	1	0	0	0	0	0	0	0	0	0		
9:15	7	0	1	4	1	1	0	0	0	0	0	0	0	0	0		
9:30	17	2	1	9	4	1	0	0	0	0	0	0	0	0	0		
9:45	21	2	4	7	6	2	0	0	0	0	0	0	0	0	0		
10:00	18	1	0	10	6	1	0	0	0	0	0	0	0	0	0		
10:15	9	1	1	3	3	1	0	0	0	0	0	0	0	0	0		
10:30	8	1	0	5	2	0	0	0	0	0	0	0	0	0	0		
10:45	11	0	1	4	5	1	0	0	0	0	0	0	0	0	0		
11:00	16	0	0	1	12	3	0	0	0	0	0	0	0	0	0		
11:15	13	0	0	4	7	2	0	0	0	0	0	0	0	0	0		
11:30	21	0	3	6	11	1	0	0	0	0	0	0	0	0	0		
11:45	10	0	0	3	5	2	0	0	0	0	0	0	0	0	0		
12:00	20	1	3	9	5	2	0	0	0	0	0	0	0	0	0		
12:15	16	0	0	8	7	1	0	0	0	0	0	0	0	0	0		
12:30	9	0	0	7	2	0	0	0	0	0	0	0	0	0	0		
12:45	11	0	0	4	4	2	1	0	0	0	0	0	0	0	0		
13:00	11	1	2	3	5	0	0	0	0	0	0	0	0	0	0		
13:15	9	0	0	2	6	1	0	0	0	0	0	0	0	0	0		
13:30	15	0	2	5	6	2	0	0	0	0	0	0	0	0	0		
13:45	18	2	4	11	1	0	0	0	0	0	0	0	0	0	0		
14:00	28	4	15	8	1	0	0	0	0	0	0	0	0	0	0		
14:15	19	2	11	5	1	0	0	0	0	0	0	0	0	0	0		
14:30	30	2	3	19	6	0	0	0	0	0	0	0	0	0	0		
14:45	36	2	4	14	11	2	1	0	0	1	1	0	0	0	0		
15:00	25	1	1	9	10	3	1	0	0	0	0	0	0	0	0		
15:15	34	0	3	16	11	4	0	0	0	0	0	0	0	0	0		
15:30	35	0	0	14	16	4	1	0	0	0	0	0	0	0	0		
15:45	58	3	2	24	24	3	2	0	0	0	0	0	0	0	0		
16:00	28	0	1	13	9	4	0	1	0	0	0	0	0	0	0		
16:15	32	0	0	10	19	3	0	0	0	0	0	0	0	0	0		
16:30	26	0	2	8	12	3	1	0	0	0	0	0	0	0	0		
16:45	58	3	2	28	19	4	1	1	0	0	0	0	0	0	0		
17:00	44	3	2	12	17	9	1	0	0	0	0	0	0	0	0		
17:15	45	3	2	16	20	4	0	0	0	0	0	0	0	0	0		
17:30	36	2	2	18	11	2	1	0	0	0	0	0	0	0	0		
17:45	23	2	1	7	10	2	1	0	0	0	0	0	0	0	0		
18:00	22	0	4	11	4	2	1	0	0	0	0	0	0	0	0		
18:15	22	1	1	6	12	2	0	0	0	0	0	0	0	0	0		
18:30	21	1	4	6	7	3	0	0	0	0	0	0	0	0	0		
18:45	21	0	2	4	13	1	1	0	0	0	0	0	0	0	0		
19:00	20	0	0	8	9	3	0	0	0	0	0	0	0	0	0		
19:15	10	1	2	3	3	0	1	0	0	0	0	0	0	0	0		
19:30	11	2	1	4	3	1	0	0	0	0	0	0	0	0	0		
19:45	9	0	2	3	3	1	0	0	0	0	0	0	0	0	0		
20:00	7	0	0	2	4	1	0	0	0	0	0	0	0	0	0		
20:15	4	0	0	1	2	1	0	0	0	0	0	0	0	0	0		
20:30	9	0	0	3	5	1	0	0	0	0	0	0	0	0	0		
20:45	9	0	1	5	2	1	0	0	0	0	0	0	0	0	0		
21:00	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0		
21:15	3	0	0	1	1	1	0	0	0	0	0	0	0	0	0		
21:30	5	0	0	1	3	1	0	0	0	0	0	0	0	0	0		
21:45	4	0	0	0	1	2	1	0	0	0	0	0	0	0	0		
22:00	6	1	0	3	1	0	1	0	0	0	0	0	0	0	0		
22:15	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0		
22:30	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0		
22:45	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0		
23:00	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0		
23:15	3	0	0	0	1	2	0	0	0	0	0	0	0	0	0		
23:30	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0		
23:45	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
SUMMARY																	
TIME PERIOD	TOTAL VOL	0-15 MPH	16-20 MPH	21-25 MPH	26-30 MPH	31-35 MPH	36-40 MPH	41-45 MPH	46-50 MPH	51-55 MPH	56-60 MPH	61-65 MPH	66-70 MPH	71-75 MPH	>75 MPH	AVG MPH	
HOURLY SPEED STATISTIC:																	
00:00-01:00	6	0	0	2	4	0	0	0	0	0	0	0	0	0	0	26	
01:00-02:00	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	28	
02:00-03:00	3	0	0	2	1	0	0	0	0	0	0	0	0	0	0	25	
03:00-04:00	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0	25	
04:00-05:00	6	0	1	0	1	3	0	1	0	0	0	0	0	0	0	31	
05:00-06:00	10	0	2	3	4	1	0	0	0	0	0	0	0	0	0	25	
06:00-07:00	19	0	2	4	8	3	1	1	0	0	0	0	0	0	0	28	
07:00-08:00	141	8	21	49	44	17	1	1	0	0	0	0	0	0	0	25	
08:00-09:00	82	6	11	29	25	10	1	0	0								





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

Intersection #1: S Tracy Blvd / W Eaton Ave



Street Name:	S Tracy Blvd						W Eaton Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	>> Count	Date:	23 Sep 2014	<<	7:45 am to 8:45 am							
Base Vol:	4	1451	76	75	605	12	27	37	28	79	37	79
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:	4	1451	76	75	605	12	27	37	28	79	37	79
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:	0.57	0.57	0.57	0.80	0.80	0.80	0.70	0.70	0.70	0.81	0.81	0.81
PHF Volume:	7	2546	133	94	756	15	39	53	40	98	46	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	2546	133	94	756	15	39	53	40	98	46	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
Final Volume:	7	2546	133	94	756	15	39	53	40	98	46	98

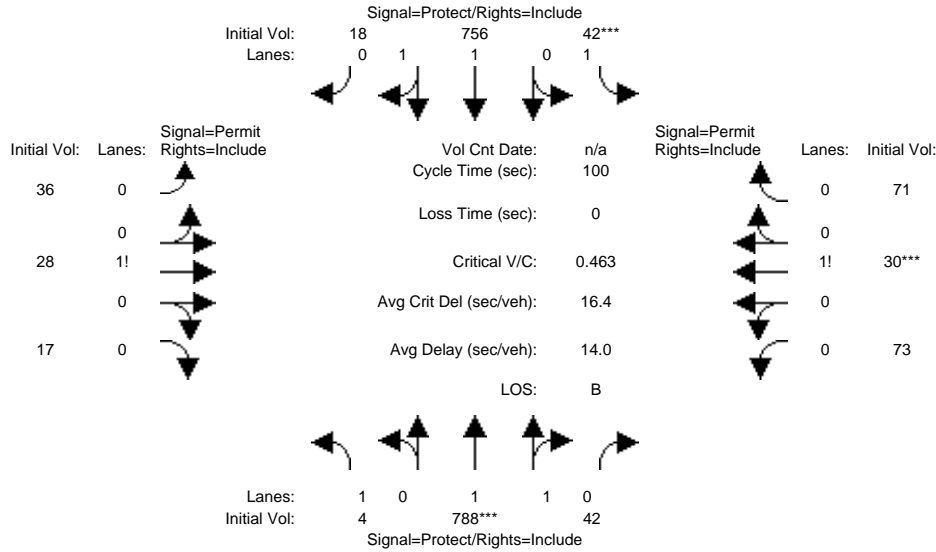
Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.76	0.76	0.76	0.69	0.69	0.69	
Lanes:	1.00	1.90	0.10	1.00	1.96	0.04	0.29	0.41	0.30	0.41	0.19	0.40	
Final Sat.:	1753	3308	173	1753	3427	68	423	579	438	533	249	533	

Capacity Analysis Module:	Vol/Sat:	0.00	0.77	0.77	0.05	0.22	0.22	0.09	0.09	0.09	0.18	0.18	0.18
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green/Cycle:	0.01	0.76	0.76	0.05	0.80	0.80	0.18	0.18	0.18	0.18	0.18	0.18	
Volume/Cap:	0.27	1.01	1.01	1.01	0.27	0.27	0.50	0.50	0.50	1.01	1.01	1.01	
Uniform Del:	48.7	11.8	11.8	47.3	2.5	2.5	36.8	36.8	36.8	40.9	40.9	40.9	
IncrementDel:	5.8	19.0	19.0	95.0	0.1	0.1	1.5	1.5	1.5	59.8	59.8	59.8	
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Delay/Veh:	54.5	30.7	30.7	142.3	2.5	2.5	38.3	38.3	38.3	100.7	101	100.7	
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:	54.5	30.7	30.7	142.3	2.5	2.5	38.3	38.3	38.3	100.7	101	100.7	
LOS by Move:	D-	C	C	F	A	A	D+	D+	D+	F	F	F	
HCM2k95thQ:	1	81	81	12	6	6	8	8	8	22	22	22	

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

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

Intersection #1: S Tracy Blvd / W Eaton Ave

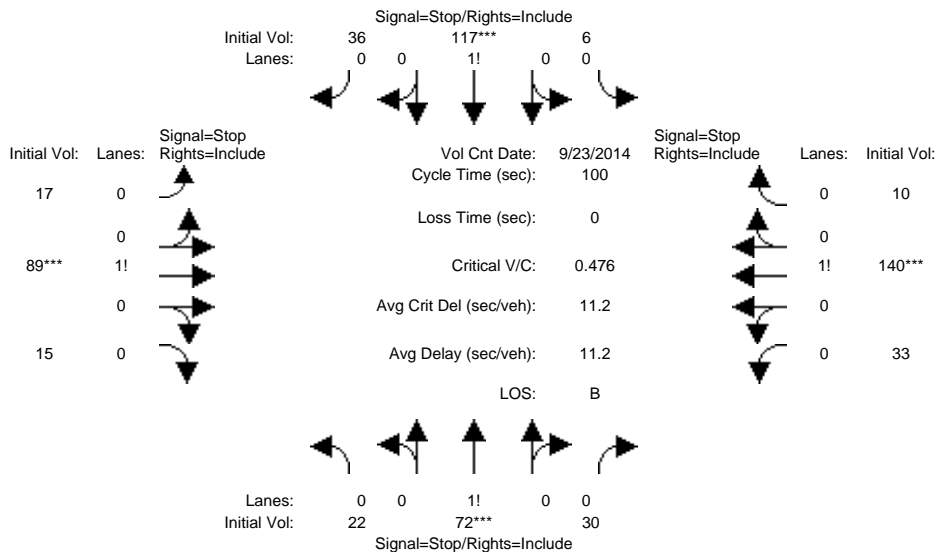


Street Name:	S Tracy Blvd						W Eaton Ave					
	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: 5:00 pm to 6:00 pm												
Base Vol:	4	788	42	42	756	18	36	28	17	73	30	71
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:	4	788	42	42	756	18	36	28	17	73	30	71
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:	0.90	0.90	0.90	0.90	0.90	0.90	0.88	0.88	0.88	0.69	0.69	0.69
PHF Volume:	4	876	47	47	840	20	41	32	19	106	43	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	876	47	47	840	20	41	32	19	106	43	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
Final Volume:	4	876	47	47	840	20	41	32	19	106	43	103
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	0.79	0.79	0.79	0.78	0.78	0.78
Lanes:	1.00	1.90	0.10	1.00	1.95	0.05	0.44	0.35	0.21	0.42	0.17	0.41
Final Sat.:	1753	3301	176	1753	3414	81	663	516	313	620	255	603
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.27	0.03	0.25	0.25	0.06	0.06	0.06	0.17	0.17	0.17
Crit Moves:	****			****						****		
Green/Cycle:	0.01	0.57	0.57	0.06	0.62	0.62	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.39	0.46	0.46	0.46	0.39	0.39	0.17	0.17	0.17	0.46	0.46	0.46
Uniform Del:	49.5	12.4	12.4	45.6	9.4	9.4	21.2	21.2	21.2	24.0	24.0	24.0
IncrcmntDel:	21.2	0.2	0.2	3.3	0.1	0.1	0.1	0.1	0.1	0.6	0.6	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	70.7	12.6	12.6	49.0	9.5	9.5	21.4	21.4	21.4	24.6	24.6	24.6
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:	70.7	12.6	12.6	49.0	9.5	9.5	21.4	21.4	21.4	24.6	24.6	24.6
LOS by Move:	E	B	B	D	A	A	C+	C+	C+	C	C	C
HCM2k95thQ:	1	16	16	4	13	13	4	4	4	12	12	12

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

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing AM

Intersection #2: Bessie Ave / W Lowell Ave



Street Name: Bessie Ave W Lowell Ave  
 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
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Volume Module: >> Count Date: 23 Sep 2014 << 7:30 am to 8:30 am												
Base Vol:	22	72	30	6	117	36	17	89	15	33	140	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	72	30	6	117	36	17	89	15	33	140	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.70	0.70	0.70	0.69	0.69	0.69	0.78	0.78	0.78	0.59	0.59	0.59
PHF Volume:	31	103	43	9	170	52	22	114	19	56	237	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	103	43	9	170	52	22	114	19	56	237	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
Final Volume:	31	103	43	9	170	52	22	114	19	56	237	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:	0.18	0.58	0.24	0.04	0.73	0.23	0.14	0.74	0.12	0.18	0.77	0.05
Final Sat.:	109	357	149	24	466	143	86	449	76	118	499	36

Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.36	0.36	0.36	0.25	0.25	0.25	0.48	0.48	0.48
Crit Moves:	****			****			****			****		
Delay/Veh:	10.3	10.3	10.3	11.0	11.0	11.0	10.1	10.1	10.1	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:	10.3	10.3	10.3	11.0	11.0	11.0	10.1	10.1	10.1	12.5	12.5	12.5
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	10.3			11.0			10.1			12.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.3			11.0			10.1			12.5		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.3	0.5	0.5	0.5	0.3	0.3	0.3	0.8	0.8	0.8

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

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #2 Bessie Ave / W Lowell Ave  
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Base Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	22		72		30	6		117		36	17		89		15	33		140		10
Major Street Volume:					304															
Minor Approach Volume:					159															
Minor Approach Volume Threshold:					537															

SIGNAL WARRANT DISCLAIMER

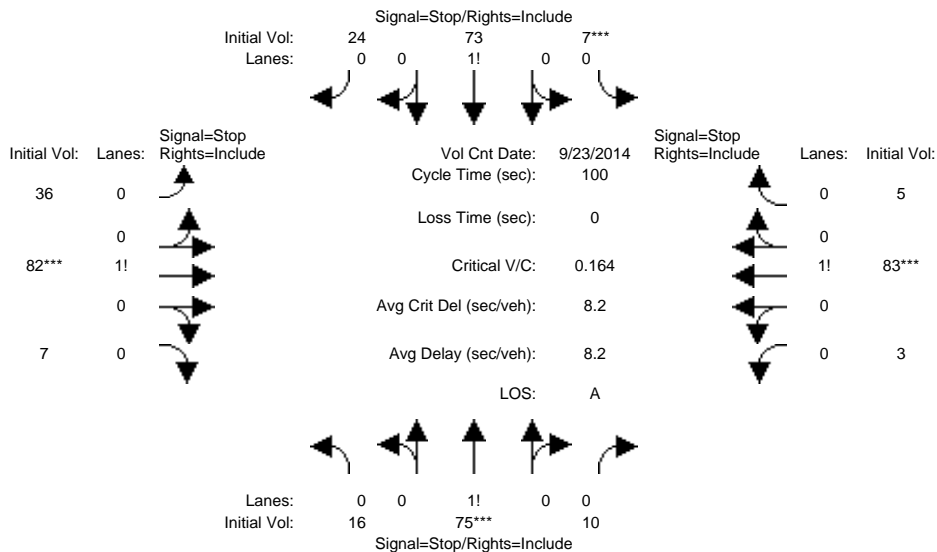
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant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

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



Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing PM

Intersection #2: Bessie Ave / W Lowell Ave



Street Name:	Bessie Ave						W Lowell Ave					
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: 23 Sep 2014 << 5:00 pm to 6:00 pm												
Base Vol:	16	75	10	7	73	24	36	82	7	3	83	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:	16	75	10	7	73	24	36	82	7	3	83	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:	16	75	10	7	73	24	36	82	7	3	83	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	75	10	7	73	24	36	82	7	3	83	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
Final Volume:	16	75	10	7	73	24	36	82	7	3	83	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:	0.16	0.74	0.10	0.07	0.70	0.23	0.29	0.65	0.06	0.03	0.92	0.05
Final Sat.:	120	564	75	52	545	179	220	500	43	25	695	42
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.13	0.13	0.13	0.13	0.16	0.16	0.16	0.12	0.12	0.12
Crit Moves:	****			****			****			****		
Delay/Veh:	8.2	8.2	8.2	8.1	8.1	8.1	8.4	8.4	8.4	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:	8.2	8.2	8.2	8.1	8.1	8.1	8.4	8.4	8.4	8.1	8.1	8.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			8.1			8.4			8.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			8.1			8.4			8.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1

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

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #2 Bessie Ave / W Lowell Ave

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Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	0
Initial Vol:	16	75	10	7	73	24	36	82	7	3	83	5
Major Street Volume:	216											
Minor Approach Volume:	104											
Minor Approach Volume Threshold:	628											

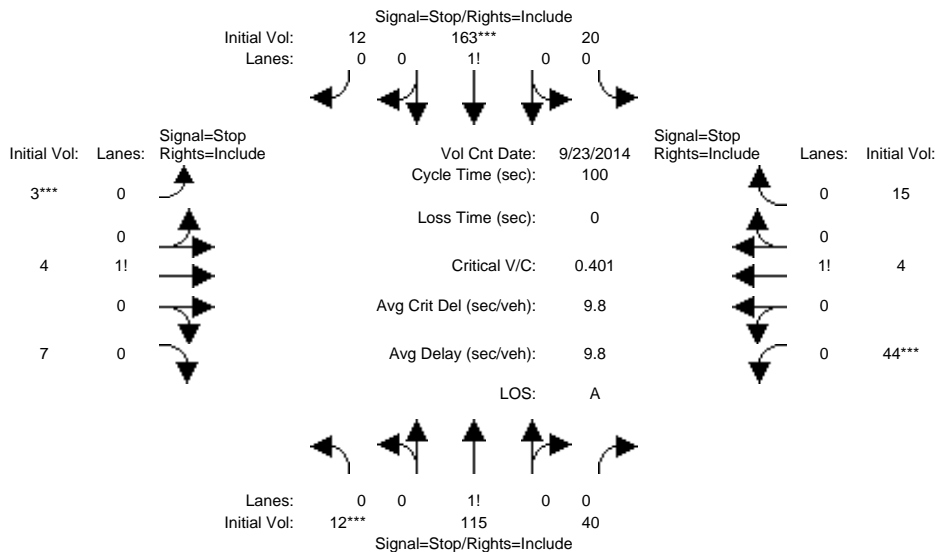
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing AM

Intersection #3: Bessie Ave / W Beverly Pl



Street Name: Bessie Ave W Beverly Pl  
 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
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Volume Module: >> Count Date: 23 Sep 2014 << 7:30 a.m. to 8:30 a.m.												
Base Vol:	12	115	40	20	163	12	3	4	7	44	4	15
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	115	40	20	163	12	3	4	7	44	4	15
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:	0.68	0.68	0.68	0.63	0.63	0.63	0.50	0.50	0.50	0.58	0.58	0.58
PHF Volume:	18	169	59	32	259	19	6	8	14	76	7	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	169	59	32	259	19	6	8	14	76	7	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
Final Volume:	18	169	59	32	259	19	6	8	14	76	7	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:	0.07	0.69	0.24	0.10	0.84	0.06	0.21	0.29	0.50	0.70	0.06	0.24
Final Sat.:	56	533	185	79	645	47	136	181	317	445	40	152

Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.32	0.40	0.40	0.40	0.04	0.04	0.04	0.17	0.17	0.17
Crit Moves:	***				***		***			***		
Delay/Veh:	9.5	9.5	9.5	10.5	10.5	10.5	8.3	8.3	8.3	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:	9.5	9.5	9.5	10.5	10.5	10.5	8.3	8.3	8.3	9.2	9.2	9.2
LOS by Move:	A	A	A	B	B	B	A	A	A	A	A	A
ApproachDel:		9.5			10.5			8.3			9.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.5			10.5			8.3			9.2	
LOS by Appr:		A			B			A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.6	0.6	0.6	0.0	0.0	0.0	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #3 Bessie Ave / W Beverly Pl  
 \*\*\*\*\*  
 Base Volume Alternative: Peak Hour Warrant NOT Met  
 -----|-----|-----|-----|-----|

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	12	115	40			20	163	12			3	4	7			44	4	15		
Major Street Volume:					362															
Minor Approach Volume:					63															
Minor Approach Volume Threshold:					490															

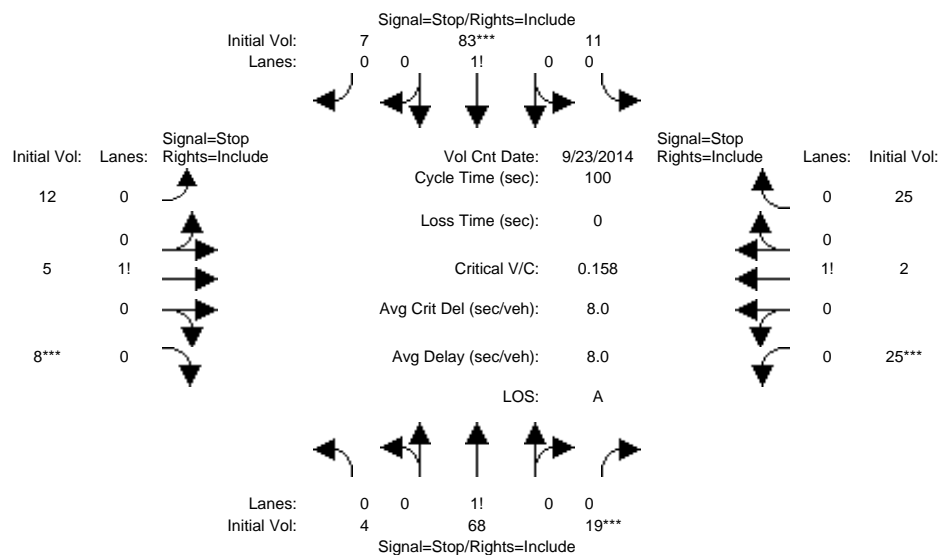
SIGNAL WARRANT DISCLAIMER

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

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Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing PM

Intersection #3: Bessie Ave / W Beverly Pl



Street Name: Bessie Ave W Beverly Pl

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
-------------	---	---	---	---	---	---	---	---	---	---	---

Volume Module: >> Count Date: 23 Sep 2014 << 4:00 pm to 5:00 pm

Base Vol:	4	68	19	11	83	7	12	5	8	25	2	25
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:	4	68	19	11	83	7	12	5	8	25	2	25
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:	0.76	0.76	0.76	0.79	0.79	0.79	0.63	0.63	0.63	0.59	0.59	0.59
PHF Volume:	5	89	25	14	105	9	19	8	13	42	3	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	89	25	14	105	9	19	8	13	42	3	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
Final Volume:	5	89	25	14	105	9	19	8	13	42	3	42

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	0.75	0.21	0.11	0.82	0.07	0.48	0.20	0.32	0.48	0.04	0.48
Final Sat.:	36	614	172	88	663	56	365	152	243	380	30	380

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.15	0.16	0.16	0.16	0.05	0.05	0.05	0.11	0.11	0.11
Crit Moves:			****			****			****		****	****
Delay/Veh:	7.9	7.9	7.9	8.1	8.1	8.1	7.7	7.7	7.7	7.8	7.8	7.8
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:	7.9	7.9	7.9	8.1	8.1	8.1	7.7	7.7	7.7	7.8	7.8	7.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.1			7.7			7.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.1			7.7			7.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #3 Bessie Ave / W Beverly Pl

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	4	68	19			11	83	7			12	5	8			25	2	25		
Major Street Volume:					192															
Minor Approach Volume:					52															
Minor Approach Volume Threshold:					660															

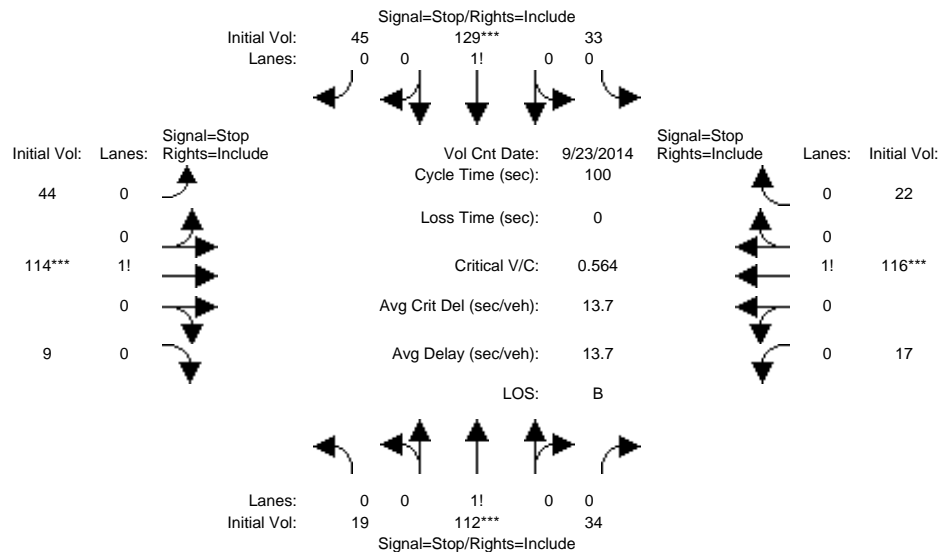
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing AM

Intersection #4: Bessie Ave / W Eaton Ave



Street Name:	Bessie Ave						W Eaton Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:	>>	Count	Date:	23 Sep 2014	<<	7:30 am to 8:30 am						
Base Vol:	19	112	34	33	129	45	44	114	9	17	116	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:	19	112	34	33	129	45	44	114	9	17	116	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:	0.70	0.70	0.70	0.62	0.62	0.62	0.68	0.68	0.68	0.60	0.60	0.60
PHF Volume:	27	160	49	53	208	73	65	168	13	28	193	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	160	49	53	208	73	65	168	13	28	193	37
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
Final Volume:	27	160	49	53	208	73	65	168	13	28	193	37

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	0.68	0.21	0.16	0.62	0.22	0.26	0.69	0.05	0.11	0.75	0.14
Final Sat.:	64	380	115	94	369	129	144	374	30	61	418	79

Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.56	0.56	0.56	0.45	0.45	0.45	0.46	0.46	0.46
Crit Moves:	****			****			****			****		
Delay/Veh:	12.6	12.6	12.6	15.1	15.1	15.1	13.2	13.2	13.2	13.3	13.3	13.3
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:	12.6	12.6	12.6	15.1	15.1	15.1	13.2	13.2	13.2	13.3	13.3	13.3
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:	12.6			15.1			13.2			13.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.6			15.1			13.2			13.3		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.6	0.6	0.6	1.0	1.0	1.0	0.6	0.6	0.6	0.7	0.7	0.7

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #4 Bessie Ave / W Eaton Ave

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	19	112	34			33	129	45			44	114	9			17	116	22		
Major Street Volume:					372															
Minor Approach Volume:					167															
Minor Approach Volume Threshold:					483															

SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Base Volume Alternative)
Existing PM

Intersection #4: Bessie Ave / W Eaton Ave

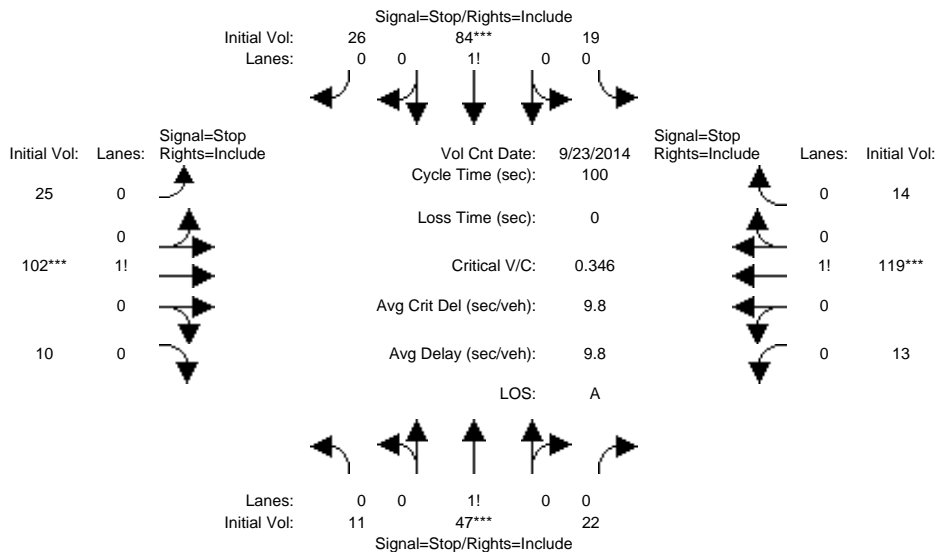


Table with columns for Street Name (Bessie Ave, W Eaton Ave), Approach (North Bound, South Bound, East Bound, West Bound), and Movement (L, T, R). Rows include Min. Green, Volume Module (Count, Date, Base Vol, Growth Adj, etc.), and Final Volume.

Saturation Flow Module table with columns for Adjustment, Lanes, and Final Sat. for each approach and movement.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ.

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*
Intersection #4 Bessie Ave / W Eaton Ave
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Summary table with columns for Street Name, Approach, and Movement, similar to the Volume Module table.

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	11		47		22	19		84		26	25		102		10	13		119		14
Major Street Volume:					283															
Minor Approach Volume:					129															
Minor Approach Volume Threshold:					556															

SIGNAL WARRANT DISCLAIMER

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

Intersection #5: Bessie Ave / W 11th St (i 205)

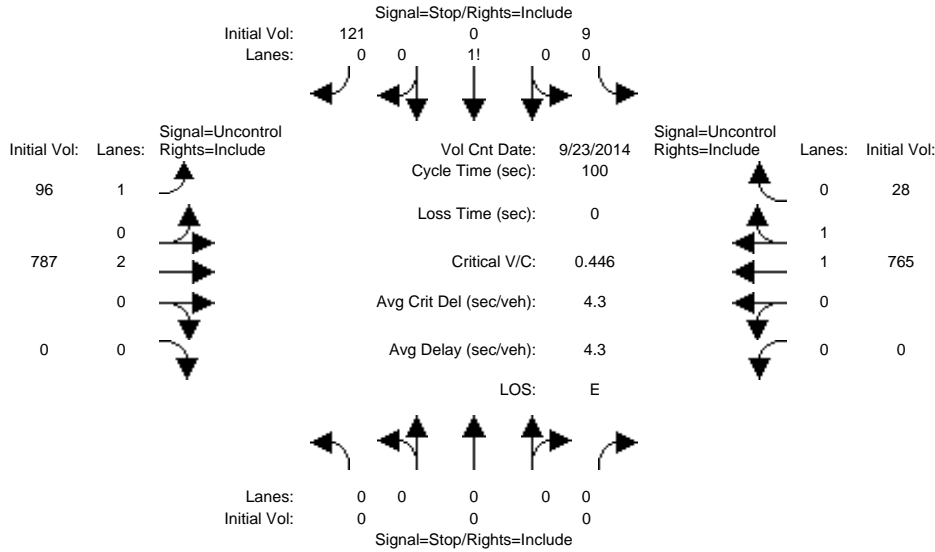


Table with columns for Street Name, Approach, Movement, Volume Module, Critical Gap Module, Capacity Module, and Level Of Service Module. It contains detailed traffic engineering data such as counts, delays, and LOS values for different movements and approaches.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
\*\*\*\*\*
Intersection #5 Bessie Ave / W 11th St (i 205)
\*\*\*\*\*
Base Volume Alternative: Peak Hour Warrant NOT Met

```

Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:              Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Lanes:              0 0 0 0 0      0 0 1! 0 0      1 0 2 0 0      0 0 1 1 0
Initial Vol:        0 0 0      9 0 121      96 787 0      0 765 28
ApproachDel:        xxxxxx      35.6      xxxxxx      xxxxxx
-----|-----|-----|-----|

```

```

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.3]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=130]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1806]
    SUCCEED - Total volume greater than or equal to 650 for intersection
    with less than four approaches.
-----|-----|-----|-----|

```

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Bessie Ave / W 11th St (i 205)

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant Met

```

-----|-----|-----|-----|
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:              Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Lanes:              0 0 0 0 0      0 0 1! 0 0      1 0 2 0 0      0 0 1 1 0
Initial Vol:        0 0 0      9 0 121      96 787 0      0 765 28
-----|-----|-----|-----|

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```

Major Street Volume:      1676
Minor Approach Volume:    130
Minor Approach Volume Threshold: 107
-----|-----|-----|-----|

```

SIGNAL WARRANT DISCLAIMER

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

Intersection #5: Bessie Ave / W 11th St (i 205)

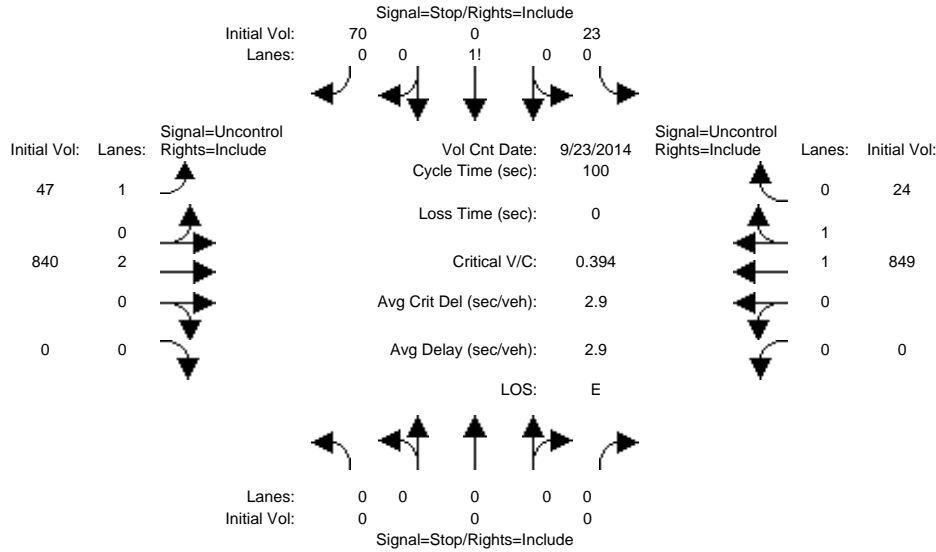


Table with columns for Street Name, Approach, Movement, Volume Module, Critical Gap Module, Capacity Module, and Level Of Service Module. It contains detailed traffic engineering data such as counts, delays, and LOS values for each approach and movement.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report
\*\*\*\*\*
Intersection #5 Bessie Ave / W 11th St (i 205)
\*\*\*\*\*
Base Volume Alternative: Peak Hour Warrant NOT Met

```

Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Lanes:           0 0 0 0 0      0 0 1! 0 0      1 0 2 0 0      0 0 1 1 0
Initial Vol:      0 0 0 0      23 0 70      47 840 0      0 849 24
ApproachDel:      xxxxxx      43.7      xxxxxx      xxxxxx
-----|-----|-----|-----|

```

```

Approach[southbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.1]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=93]
    FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1853]
    SUCCEED - Total volume greater than or equal to 650 for intersection
                with less than four approaches.
-----|-----|-----|-----|

```

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Bessie Ave / W 11th St (i 205)

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

```

-----|-----|-----|-----|
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:           Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Lanes:           0 0 0 0 0      0 0 1! 0 0      1 0 2 0 0      0 0 1 1 0
Initial Vol:      0 0 0 0      23 0 70      47 840 0      0 849 24
-----|-----|-----|-----|

```

```

Major Street Volume:      1760
Minor Approach Volume:    93
Minor Approach Volume Threshold: 90 [less than minimum of 100]
-----|-----|-----|-----|

```

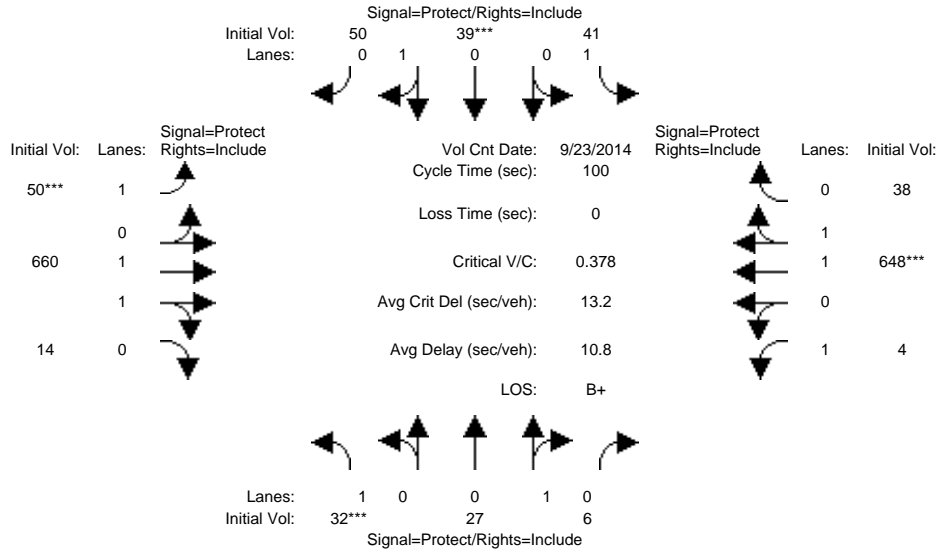
SIGNAL WARRANT DISCLAIMER

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

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

Intersection #6: Parker Ave / W 11th St (i 205)



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:	Count Date: 23 Sep 2014 << 7:30 am to 8:30 am											
Base Vol:	32	27	6	41	39	50	50	660	14	4	648	38
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:	32	27	6	41	39	50	50	660	14	4	648	38
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:	0.74	0.74	0.74	0.88	0.88	0.88	0.85	0.85	0.85	0.76	0.76	0.76
PHF Volume:	43	36	8	47	44	57	59	776	16	5	853	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	36	8	47	44	57	59	776	16	5	853	50
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
Final Volume:	43	36	8	47	44	57	59	776	16	5	853	50

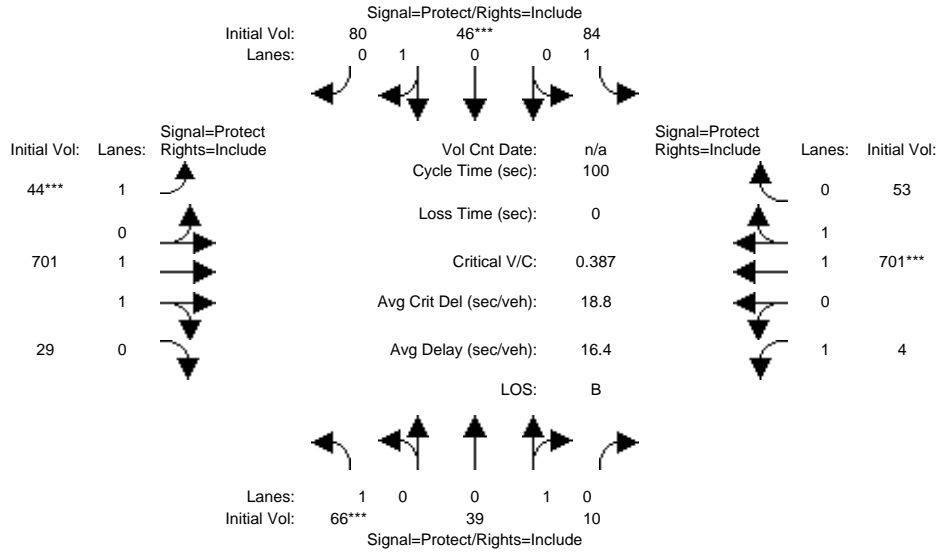
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.94	0.94	0.92	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	0.82	0.18	1.00	0.44	0.56	1.00	1.96	0.04	1.00	1.89	0.11
Final Sat.:	1753	1469	326	1753	741	949	1753	3422	73	1753	3285	193

Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.03	0.06	0.06	0.03	0.23	0.23	0.00	0.26	0.26
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.11	0.11	0.12	0.16	0.16	0.09	0.77	0.77	0.01	0.69	0.69
Volume/Cap:	0.38	0.23	0.23	0.23	0.38	0.38	0.38	0.30	0.30	0.30	0.38	0.38
Uniform Del:	44.8	40.8	40.8	40.2	37.7	37.7	42.9	3.5	3.5	49.1	6.6	6.6
IncrementDel:	2.1	0.6	0.6	0.6	0.9	0.9	1.5	0.1	0.1	9.1	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	46.9	41.4	41.4	40.8	38.6	38.6	44.5	3.6	3.6	58.3	6.7	6.7
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:	46.9	41.4	41.4	40.8	38.6	38.6	44.5	3.6	3.6	58.3	6.7	6.7
LOS by Move:	D	D	D	D	D+	D+	D	A	A	E+	A	A
HCM2k95thQ:	4	3	3	3	6	6	4	8	8	1	12	12

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

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

Intersection #6: Parker Ave / W 11th St ( i 205)



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:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	66	39	10	84	46	80	44	701	29	4	701	53
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:	66	39	10	84	46	80	44	701	29	4	701	53
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:	0.74	0.74	0.74	0.85	0.85	0.85	0.97	0.97	0.97	0.98	0.98	0.98
PHF Volume:	89	53	14	99	54	94	45	723	30	4	715	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	53	14	99	54	94	45	723	30	4	715	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
Final Volume:	89	53	14	99	54	94	45	723	30	4	715	54

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.94	0.94	0.92	0.88	0.88	0.92	0.92	0.92	0.92	0.91	0.91
Lanes:	1.00	0.80	0.20	1.00	0.37	0.63	1.00	1.92	0.08	1.00	1.86	0.14
Final Sat.:	1753	1423	365	1753	610	1060	1753	3346	138	1753	3226	244

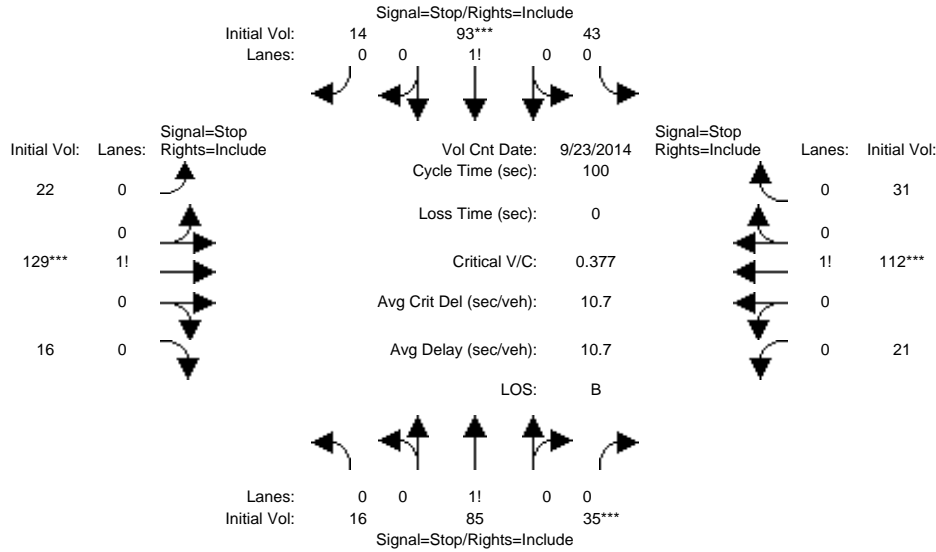
Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.05	0.04	0.04	0.06	0.09	0.09	0.03	0.22	0.22	0.00	0.22	0.22
Crit Moves:	****			****			****				****	
Green/Cycle:	0.13	0.14	0.14	0.22	0.23	0.23	0.07	0.63	0.63	0.01	0.57	0.57
Volume/Cap:	0.39	0.26	0.26	0.26	0.39	0.39	0.39	0.34	0.34	0.34	0.39	0.39
Uniform Del:	39.7	38.1	38.1	32.4	32.6	32.6	44.7	8.6	8.6	49.4	11.7	11.7
IncrementDel:	1.1	0.5	0.5	0.4	0.7	0.7	2.1	0.1	0.1	16.3	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.8	38.7	38.7	32.8	33.2	33.2	46.8	8.7	8.7	65.7	11.9	11.9
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:	40.8	38.7	38.7	32.8	33.2	33.2	46.8	8.7	8.7	65.7	11.9	11.9
LOS by Move:	D	D+	D+	C-	C-	C-	D	A	A	E	B+	B+
HCM2k95thQ:	6	4	4	5	8	8	4	11	11	1	13	13

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



Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing AM

Intersection #7: Parker Ave / Eaton Ave



Street Name:	Parker Ave						Eaton Ave					
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: 23 Sep 2014 << 7:30 am to 8:30 am												
Base Vol:	16	85	35	43	93	14	22	129	16	21	112	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	85	35	43	93	14	22	129	16	21	112	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.74	0.74	0.74	0.80	0.80	0.80	0.68	0.68	0.68	0.73	0.73	0.73
PHF Volume:	22	115	47	54	116	18	32	190	24	29	153	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	115	47	54	116	18	32	190	24	29	153	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
Final Volume:	22	115	47	54	116	18	32	190	24	29	153	42
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:	0.12	0.62	0.26	0.29	0.62	0.09	0.13	0.77	0.10	0.13	0.68	0.19
Final Sat.:	74	392	161	176	381	57	86	503	62	83	445	123
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.30	0.30	0.30	0.38	0.38	0.38	0.34	0.34	0.34
Crit Moves:			***			***			***			***
Delay/Veh:	10.3	10.3	10.3	10.5	10.5	10.5	11.1	11.1	11.1	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:	10.3	10.3	10.3	10.5	10.5	10.5	11.1	11.1	11.1	10.7	10.7	10.7
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	10.3			10.5			11.1			10.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.3			10.5			11.1			10.7		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4

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

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #7 Parker Ave / Eaton Ave

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	16		85		35	43		93		14	22		129		16	21		112		31
Major Street Volume:					331															
Minor Approach Volume:					150															
Minor Approach Volume Threshold:					514															

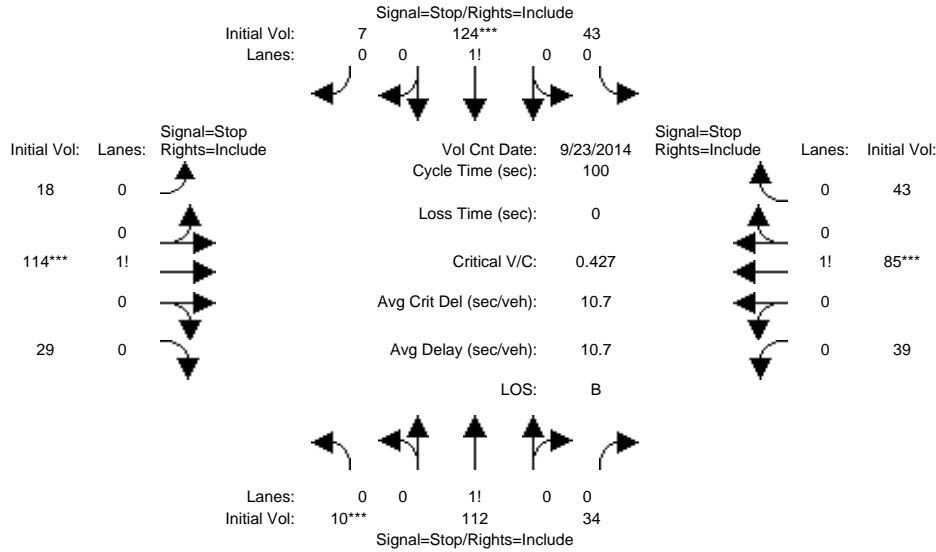
SIGNAL WARRANT DISCLAIMER

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

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

Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing PM

Intersection #7: Parker Ave / Eaton Ave



Street Name:	Parker Ave						Eaton Ave					
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: 23 Sep 2014 << 4:30 pm to 5:30 pm												
Base Vol:	10	112	34	43	124	7	18	114	29	39	85	43
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:	10	112	34	43	124	7	18	114	29	39	85	43
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:	0.98	0.98	0.98	0.81	0.81	0.81	0.94	0.94	0.94	0.58	0.58	0.58
PHF Volume:	10	114	35	53	153	9	19	121	31	67	147	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	114	35	53	153	9	19	121	31	67	147	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	10	114	35	53	153	9	19	121	31	67	147	74
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	0.72	0.22	0.25	0.71	0.04	0.11	0.71	0.18	0.23	0.51	0.26
Final Sat.:	40	447	136	155	446	25	71	451	115	157	343	174
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.34	0.34	0.34	0.27	0.27	0.27	0.43	0.43	0.43
Crit Moves:	***			***			***			***		
Delay/Veh:	9.9	9.9	9.9	10.9	10.9	10.9	10.0	10.0	10.0	11.5	11.5	11.5
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:	9.9	9.9	9.9	10.9	10.9	10.9	10.0	10.0	10.0	11.5	11.5	11.5
LOS by Move:	A	A	A	B	B	B	A	A	A	B	B	B
ApproachDel:	9.9			10.9			10.0			11.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			10.9			10.0			11.5		
LOS by Appr:	A			B			A			B		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.6	0.6	0.6

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

Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #7 Parker Ave / Eaton Ave

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	10	112	34			43	124	7			18	114	29			39	85	43		
Major Street Volume:					330															
Minor Approach Volume:					167															
Minor Approach Volume Threshold:					515															

SIGNAL WARRANT DISCLAIMER

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

Intersection #8: Parker Ave / W Beverly Pl

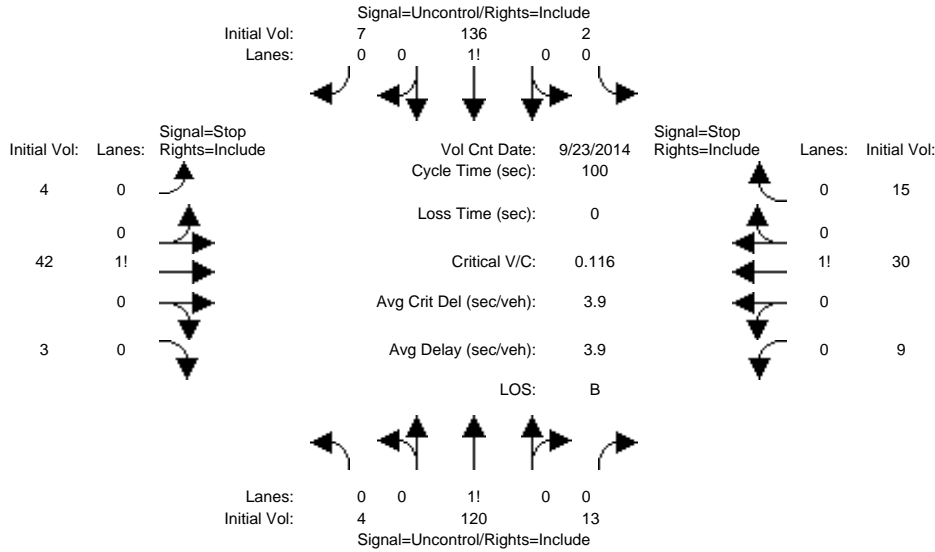


Table with columns for Street Name, Approach, Movement, Volume Module, Critical Gap Module, Capacity Module, and Level Of Service Module. It contains detailed traffic engineering data for the intersection.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #8 Parker Ave / W Beverly Pl
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Summary table with columns: Approach, North Bound, South Bound, East Bound, West Bound.

Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled		Uncontrolled	
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	4 120 13	2 136 7	4 42 3	9 30 15
ApproachDel:	xxxxxx		xxxxxx	
			12.3	11.8

Approach[eastbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=49]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=385]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=54]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=385]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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

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Peak Hour Volume Signal Warrant Report [Urban]

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Intersection #8 Parker Ave / W Beverly Pl

\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled		Stop Sign	
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	4 120 13	2 136 7	4 42 3	9 30 15

Major Street Volume: 282  
Minor Approach Volume: 54  
Minor Approach Volume Threshold: 557

SIGNAL WARRANT DISCLAIMER

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

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

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

Intersection #8: Parker Ave / W Beverly Pl

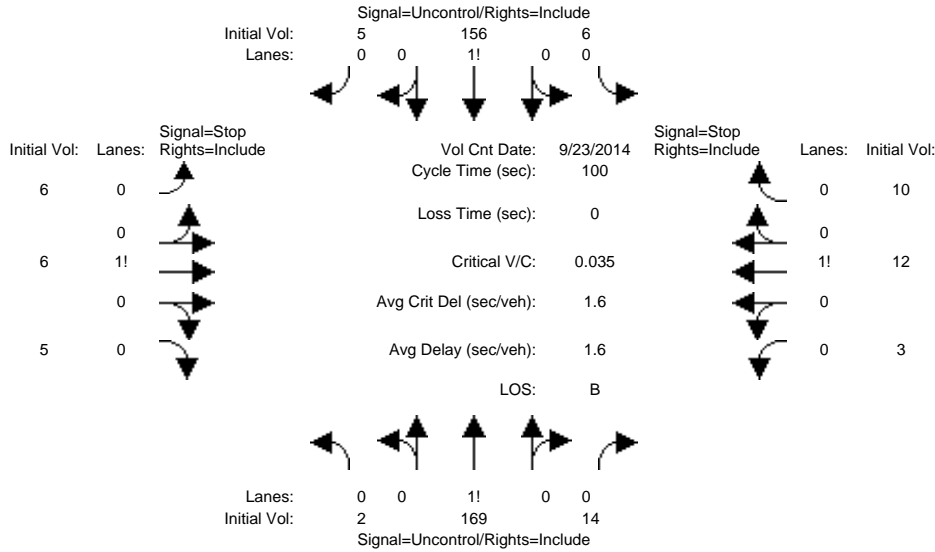


Table with columns for Street Name, Approach, Movement, Volume Module, Critical Gap Module, Capacity Module, and Level Of Service Module. It contains detailed traffic engineering data for the intersection.

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

Peak Hour Delay Signal Warrant Report

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Intersection #8 Parker Ave / W Beverly Pl
\*\*\*\*\*
Base Volume Alternative: Peak Hour Warrant NOT Met
Approach: North Bound South Bound East Bound West Bound

Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled		Stop Sign	
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	2 169 14	6 156 5	6 6 5	3 12 10
ApproachDel:	xxxxxx		11.8	11.5

Approach[eastbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.1]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=17]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=394]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.1]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=25]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=394]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #8 Parker Ave / W Beverly Pl  
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled		Stop Sign	
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	2 169 14	6 156 5	6 6 5	3 12 10

Major Street Volume: 352  
Minor Approach Volume: 25  
Minor Approach Volume Threshold: 498

SIGNAL WARRANT DISCLAIMER

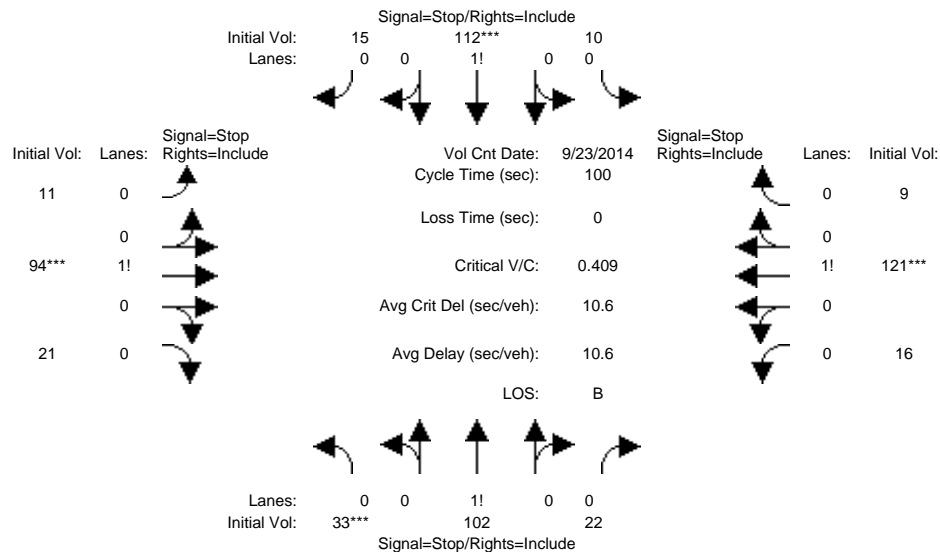
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Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing AM

Intersection #9: Parker Ave / W Lowell Ave



Street Name: Parker Ave W Lowell Ave  
 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: 23 Sep 2014 << 7:30 am to 8:30 am

Base Vol:	33	102	22	10	112	15	11	94	21	16	121	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:	33	102	22	10	112	15	11	94	21	16	121	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:	0.74	0.74	0.74	0.82	0.82	0.82	0.75	0.75	0.75	0.54	0.54	0.54
PHF Volume:	45	138	30	12	137	18	15	125	28	30	224	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	138	30	12	137	18	15	125	28	30	224	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
Final Volume:	45	138	30	12	137	18	15	125	28	30	224	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:	0.21	0.65	0.14	0.07	0.82	0.11	0.09	0.74	0.17	0.11	0.83	0.06
Final Sat.:	134	415	90	46	511	68	56	476	106	72	548	41

Capacity Analysis Module:

Vol/Sat:	0.33	0.33	0.33	0.27	0.27	0.27	0.26	0.26	0.26	0.41	0.41	0.41
Crit Moves:	****			****			****			****		
Delay/Veh:	10.6	10.6	10.6	10.1	10.1	10.1	9.9	9.9	9.9	11.4	11.4	11.4
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	10.1	10.1	10.1	9.9	9.9	9.9	11.4	11.4	11.4
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
ApproachDel:	10.6			10.1			9.9			11.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.6			10.1			9.9			11.4		
LOS by Appr:	B			B			A			B		
AllWayAvgQ:	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #9 Parker Ave / W Lowell Ave  
 \*\*\*\*\*  
 Base Volume Alternative: Peak Hour Warrant NOT Met  
 -----|-----|-----|-----|-----|

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	33	102		22		10	112		15		11	94		21		16	121		9	
Major Street Volume:					294															
Minor Approach Volume:					146															
Minor Approach Volume Threshold:					546															

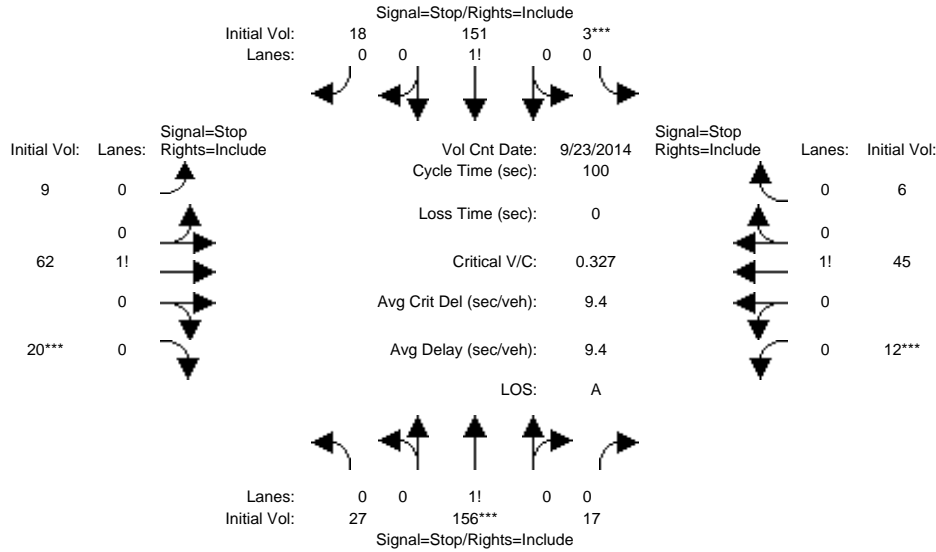
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report  
2000 HCM 4-Way Stop (Base Volume Alternative)  
Existing PM

Intersection #9: Parker Ave / W Lowell Ave



Street Name:	Parker Ave						W Lowell Ave					
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: 23 Sep 2014 << 5:00 pm to 6:00 pm												
Base Vol:	27	156	17	3	151	18	9	62	20	12	45	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	156	17	3	151	18	9	62	20	12	45	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.88	0.88	0.88	0.58	0.58	0.58
PHF Volume:	33	188	20	4	182	22	10	70	23	21	78	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	188	20	4	182	22	10	70	23	21	78	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	33	188	20	4	182	22	10	70	23	21	78	10
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	0.78	0.09	0.02	0.88	0.10	0.10	0.68	0.22	0.19	0.71	0.10
Final Sat.:	99	574	63	13	643	77	65	450	145	124	466	62
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.28	0.28	0.28	0.16	0.16	0.16	0.17	0.17	0.17
Crit Moves:	****			****			****			****		
Delay/Veh:	9.9	9.9	9.9	9.5	9.5	9.5	8.9	8.9	8.9	9.0	9.0	9.0
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:	9.9	9.9	9.9	9.5	9.5	9.5	8.9	8.9	8.9	9.0	9.0	9.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.9			9.5			8.9			9.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			9.5			8.9			9.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #9 Parker Ave / W Lowell Ave  
 \*\*\*\*\*  
 Base Volume Alternative: Peak Hour Warrant NOT Met  
 -----|-----|-----|-----|-----|

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	27	156		17		3	151		18		9	62		20		12	45		6	
Major Street Volume:					372															
Minor Approach Volume:					91															
Minor Approach Volume Threshold:					483															

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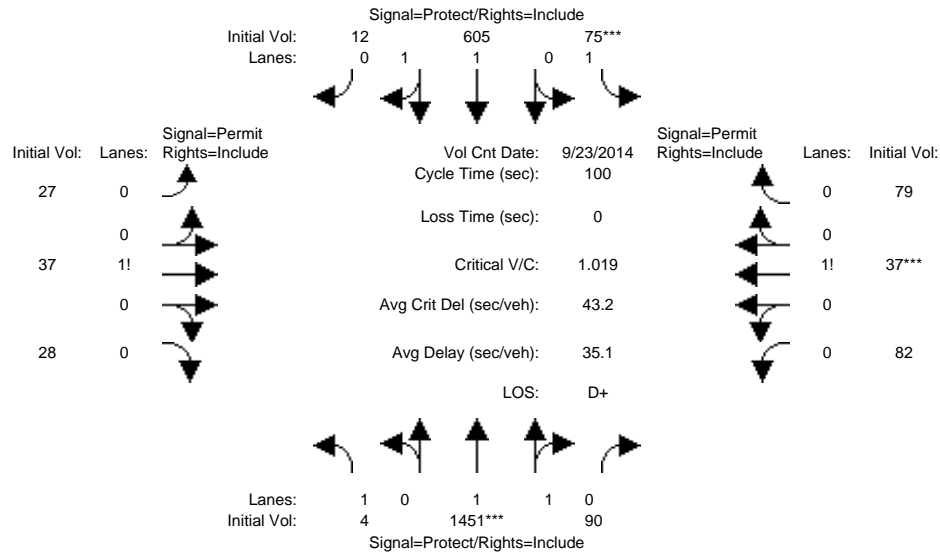


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**Appendix C – Level of Service Worksheets: Existing + Proposed  
Project (Scenario 2)**

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing Plus Project AM

Intersection #1: S Tracy Blvd / W Eaton Ave

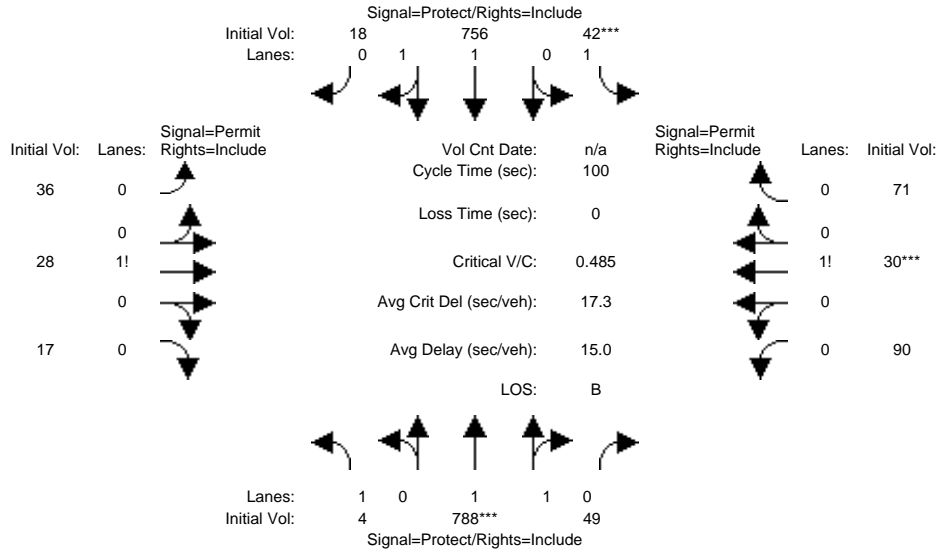


Street Name:	S Tracy Blvd						W Eaton Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 Sep 2014 << 7:45 am to 8:45 am												
Base Vol:	4	1451	76	75	605	12	27	37	28	79	37	79
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:	4	1451	76	75	605	12	27	37	28	79	37	79
Added Vol:	0	0	14	0	0	0	0	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	1451	90	75	605	12	27	37	28	82	37	79
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:	0.57	0.57	0.57	0.80	0.80	0.80	0.70	0.70	0.70	0.81	0.81	0.81
PHF Volume:	7	2546	158	94	756	15	39	53	40	101	46	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	2546	158	94	756	15	39	53	40	101	46	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
Final Volume:	7	2546	158	94	756	15	39	53	40	101	46	98
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	0.92	0.92	0.76	0.76	0.76	0.69	0.69	0.69
Lanes:	1.00	1.88	0.12	1.00	1.96	0.04	0.29	0.41	0.30	0.41	0.19	0.40
Final Sat.:	1753	3271	203	1753	3427	68	425	582	440	541	244	522
Capacity Analysis Module:												
Vol/Sat:	0.00	0.78	0.78	0.05	0.22	0.22	0.09	0.09	0.09	0.19	0.19	0.19
Crit Moves:	****			****						****		
Green/Cycle:	0.01	0.76	0.76	0.05	0.80	0.80	0.18	0.18	0.18	0.18	0.18	0.18
Volume/Cap:	0.28	1.02	1.02	1.02	0.28	0.28	0.49	0.49	0.49	1.02	1.02	1.02
Uniform Del:	48.8	11.8	11.8	47.4	2.5	2.5	36.7	36.7	36.7	40.8	40.8	40.8
IncrcmntDel:	5.8	22.4	22.4	99.0	0.1	0.1	1.5	1.5	1.5	63.0	63.0	63.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	54.5	34.2	34.2	146.4	2.6	2.6	38.1	38.1	38.1	103.8	104	103.8
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:	54.5	34.2	34.2	146.4	2.6	2.6	38.1	38.1	38.1	103.8	104	103.8
LOS by Move:	D-	C-	C-	F	A	A	D+	D+	D+	F	F	F
HCM2k95thQ:	1	83	83	12	6	6	8	8	8	23	23	23

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

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

Intersection #1: S Tracy Blvd / W Eaton Ave



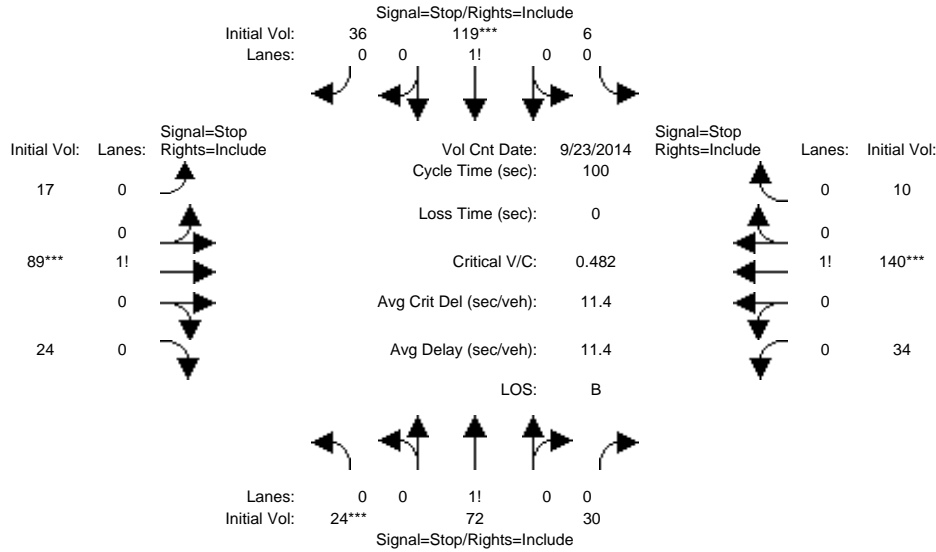
Street Name:	S Tracy Blvd						W Eaton Ave					
	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: 5:00 pm to 6:00 pm												
Base Vol:	4	788	42	42	756	18	36	28	17	73	30	71
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:	4	788	42	42	756	18	36	28	17	73	30	71
Added Vol:	0	0	7	0	0	0	0	0	0	17	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	788	49	42	756	18	36	28	17	90	30	71
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:	0.90	0.90	0.90	0.90	0.90	0.90	0.88	0.88	0.88	0.69	0.69	0.69
PHF Volume:	4	876	54	47	840	20	41	32	19	130	43	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	876	54	47	840	20	41	32	19	130	43	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
Final Volume:	4	876	54	47	840	20	41	32	19	130	43	103
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	0.92	0.92	0.78	0.78	0.78	0.76	0.76	0.76
Lanes:	1.00	1.88	0.12	1.00	1.95	0.05	0.44	0.35	0.21	0.47	0.16	0.37
Final Sat.:	1753	3270	203	1753	3414	81	655	510	309	684	228	539
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.27	0.03	0.25	0.25	0.06	0.06	0.06	0.19	0.19	0.19
Crit Moves:	****			****						****		
Green/Cycle:	0.01	0.55	0.55	0.05	0.60	0.60	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.41	0.49	0.49	0.49	0.41	0.41	0.16	0.16	0.16	0.49	0.49	0.49
Uniform Del:	49.5	13.7	13.7	45.9	10.6	10.6	19.6	19.6	19.6	22.7	22.7	22.7
IncrcmntDel:	23.3	0.2	0.2	3.8	0.1	0.1	0.1	0.1	0.1	0.7	0.7	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	72.8	13.9	13.9	49.7	10.7	10.7	19.8	19.8	19.8	23.4	23.4	23.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.8	13.9	13.9	49.7	10.7	10.7	19.8	19.8	19.8	23.4	23.4	23.4
LOS by Move:	E	B	B	D	B+	B+	B-	B-	B-	C	C	C
HCM2k95thQ:	1	17	17	4	14	14	4	4	4	13	13	13



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

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing Plus Project AM

Intersection #2: Bessie Ave / W Lowell Ave



Street Name:	Bessie Ave						W Lowell Ave					
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: 23 Sep 2014 << 7:30 am to 8:30 am												
Base Vol:	22	72	30	6	117	36	17	89	15	33	140	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	72	30	6	117	36	17	89	15	33	140	10
Added Vol:	2	0	0	0	2	0	0	0	9	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	72	30	6	119	36	17	89	24	34	140	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.70	0.70	0.70	0.69	0.69	0.69	0.78	0.78	0.78	0.59	0.59	0.59
PHF Volume:	34	103	43	9	172	52	22	114	31	58	237	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	103	43	9	172	52	22	114	31	58	237	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
Final Volume:	34	103	43	9	172	52	22	114	31	58	237	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:	0.19	0.57	0.24	0.04	0.74	0.22	0.13	0.69	0.18	0.18	0.77	0.05
Final Sat.:	116	347	145	23	463	140	80	418	113	119	492	35
Capacity Analysis Module:												
Vol/Sat:	0.30	0.30	0.30	0.37	0.37	0.37	0.27	0.27	0.27	0.48	0.48	0.48
Crit Moves:	****			****			****			****		
Delay/Veh:	10.5	10.5	10.5	11.2	11.2	11.2	10.2	10.2	10.2	12.7	12.7	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:	10.5	10.5	10.5	11.2	11.2	11.2	10.2	10.2	10.2	12.7	12.7	12.7
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	10.5			11.2			10.2			12.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.5			11.2			10.2			12.7		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.3	0.5	0.5	0.5	0.3	0.3	0.3	0.8	0.8	0.8

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #2 Bessie Ave / W Lowell Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	0
Initial Vol:	24	72	30	6	119	36	17	89	24	34	140	10
Major Street Volume:	314											
Minor Approach Volume:	161											
Minor Approach Volume Threshold:	528											

SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing Plus Project PM

Intersection #2: Bessie Ave / W Lowell Ave

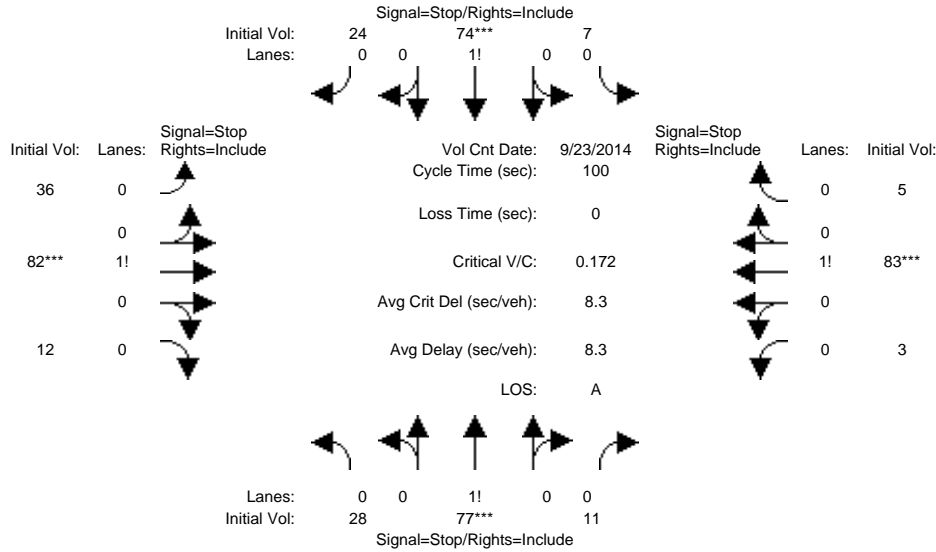


Table with columns for Street Name, Approach, Movement, and various traffic metrics. Rows include Volume Module, Saturation Flow Module, and Capacity Analysis Module. Data is presented for North, South, East, and West bounds.

Note: Queue reported is the number of cars per lane.
Peak Hour Volume Signal Warrant Report [Urban]
\*\*\*\*\*
Intersection #2 Bessie Ave / W Lowell Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign				
Lanes:	0	0	1!	0	0	1!	0	0	0	0	0	1!	0	0
Initial Vol:	28	77	11	7	74	24	36	82	12	3	83	5		
Major Street Volume:	221													
Minor Approach Volume:	130													
Minor Approach Volume Threshold:	622													

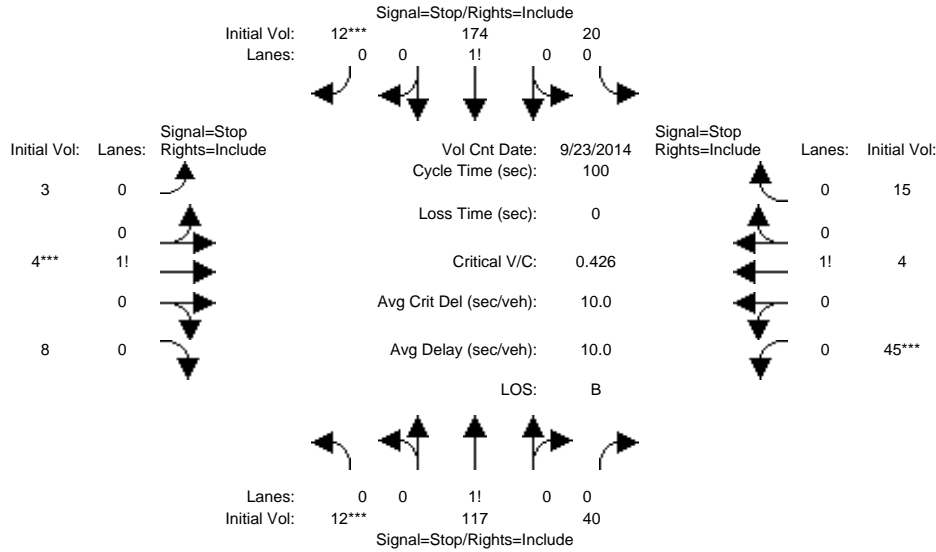
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing Plus Project AM

Intersection #3: Bessie Ave / W Beverly Pl



Street Name:	Bessie Ave						W Beverly Pl					
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: 23 Sep 2014 << 7:30 a.m. to 8:30 a.m.	12	115	40	20	163	12	3	4	7	44	4	15
Base Vol:	12	115	40	20	163	12	3	4	7	44	4	15
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	115	40	20	163	12	3	4	7	44	4	15
Added Vol:	0	2	0	0	11	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	117	40	20	174	12	3	4	8	45	4	15
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:	0.68	0.68	0.68	0.63	0.63	0.63	0.50	0.50	0.50	0.58	0.58	0.58
PHF Volume:	18	172	59	32	276	19	6	8	16	78	7	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	172	59	32	276	19	6	8	16	78	7	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
Final Volume:	18	172	59	32	276	19	6	8	16	78	7	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:	0.07	0.69	0.24	0.10	0.84	0.06	0.20	0.27	0.53	0.71	0.06	0.23
Final Sat.:	54	531	181	75	648	45	126	167	335	443	39	148
Capacity Analysis Module:												
Vol/Sat:	0.32	0.32	0.32	0.43	0.43	0.43	0.05	0.05	0.05	0.18	0.18	0.18
Crit Moves:	****					****	****			****		
Delay/Veh:	9.6	9.6	9.6	10.8	10.8	10.8	8.3	8.3	8.3	9.3	9.3	9.3
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:	9.6	9.6	9.6	10.8	10.8	10.8	8.3	8.3	8.3	9.3	9.3	9.3
LOS by Move:	A	A	A	B	B	B	A	A	A	A	A	A
ApproachDel:	9.6			10.8			8.3			9.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.6			10.8			8.3			9.3		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.4	0.4	0.4	0.7	0.7	0.7	0.0	0.0	0.0	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #3 Bessie Ave / W Beverly Pl

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	0
Initial Vol:	12	117	40	20	174	12	3	4	8	45	4	15
Major Street Volume:							375					
Minor Approach Volume:							64					
Minor Approach Volume Threshold:	481											

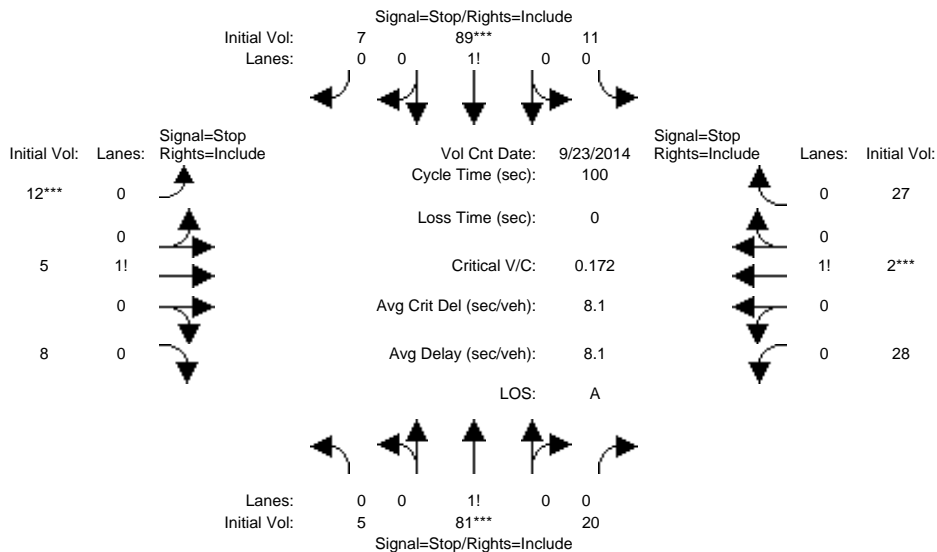
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report  
2000 HCM 4-Way Stop (Future Volume Alternative)  
Existing Plus Project PM

Intersection #3: Bessie Ave / W Beverly Pl



Street Name:	Bessie Ave						W Beverly Pl					
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: 23 Sep 2014 << 4:00 pm to 5:00 pm												
Base Vol:	4	68	19	11	83	7	12	5	8	25	2	25
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:	4	68	19	11	83	7	12	5	8	25	2	25
Added Vol:	1	13	1	0	6	0	0	0	0	3	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	81	20	11	89	7	12	5	8	28	2	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:	0.76	0.76	0.76	0.79	0.79	0.79	0.63	0.63	0.63	0.59	0.59	0.59
PHF Volume:	7	107	26	14	113	9	19	8	13	47	3	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	107	26	14	113	9	19	8	13	47	3	46
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
Final Volume:	7	107	26	14	113	9	19	8	13	47	3	46
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	0.10	0.83	0.07	0.48	0.20	0.32	0.49	0.04	0.47
Final Sat.:	38	621	153	82	664	52	358	149	238	381	27	367
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.17	0.17	0.17	0.05	0.05	0.05	0.12	0.12	0.12
Crit Moves:	****			****			****			****		
Delay/Veh:	8.1	8.1	8.1	8.2	8.2	8.2	7.8	7.8	7.8	8.0	8.0	8.0
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:	8.1	8.1	8.1	8.2	8.2	8.2	7.8	7.8	7.8	8.0	8.0	8.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.1			8.2			7.8			8.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.1			8.2			7.8			8.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #3 Bessie Ave / W Beverly Pl



\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign				
Lanes:	0	0	1!	0	0	1!	0	0	0	0	0	1!	0	0
Initial Vol:	5	81	20	11	89	7	12	5	8	28	2	27		
Major Street Volume:	213													
Minor Approach Volume:	57													
Minor Approach Volume Threshold:	632													

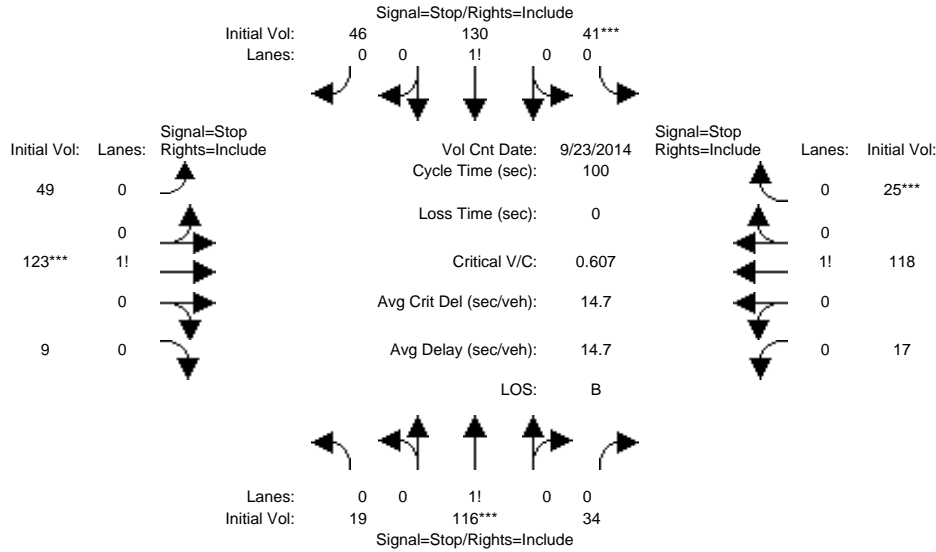
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing Plus Project AM

Intersection #4: Bessie Ave / W Eaton Ave



Street Name:	Bessie Ave						W Eaton Ave					
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: 23 Sep 2014 << 7:30 am to 8:30 am												
Base Vol:	19	112	34	33	129	45	44	114	9	17	116	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:	19	112	34	33	129	45	44	114	9	17	116	22
Added Vol:	0	4	0	8	1	1	5	9	0	0	2	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	116	34	41	130	46	49	123	9	17	118	25
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:	0.70	0.70	0.70	0.62	0.62	0.62	0.68	0.68	0.68	0.60	0.60	0.60
PHF Volume:	27	166	49	66	210	74	72	181	13	28	197	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	166	49	66	210	74	72	181	13	28	197	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
Final Volume:	27	166	49	66	210	74	72	181	13	28	197	42
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	0.69	0.20	0.19	0.60	0.21	0.27	0.68	0.05	0.10	0.74	0.16
Final Sat.:	61	370	109	109	345	122	145	364	27	58	400	85
Capacity Analysis Module:												
Vol/Sat:	0.45	0.45	0.45	0.61	0.61	0.61	0.50	0.50	0.50	0.49	0.49	0.49
Crit Moves:	****			****			****			****		
Delay/Veh:	13.3	13.3	13.3	16.5	16.5	16.5	14.4	14.4	14.4	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:	13.3	13.3	13.3	16.5	16.5	16.5	14.4	14.4	14.4	14.1	14.1	14.1
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:	13.3			16.5			14.4			14.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.3			16.5			14.4			14.1		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.6	0.6	0.6	1.2	1.2	1.2	0.8	0.8	0.8	0.7	0.7	0.7

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #4 Bessie Ave / W Eaton Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Initial Vol:	19	116	34	41	130	46	49	123	9	17	118	25
Major Street Volume:							386					
Minor Approach Volume:							181					
Minor Approach Volume Threshold:	473											

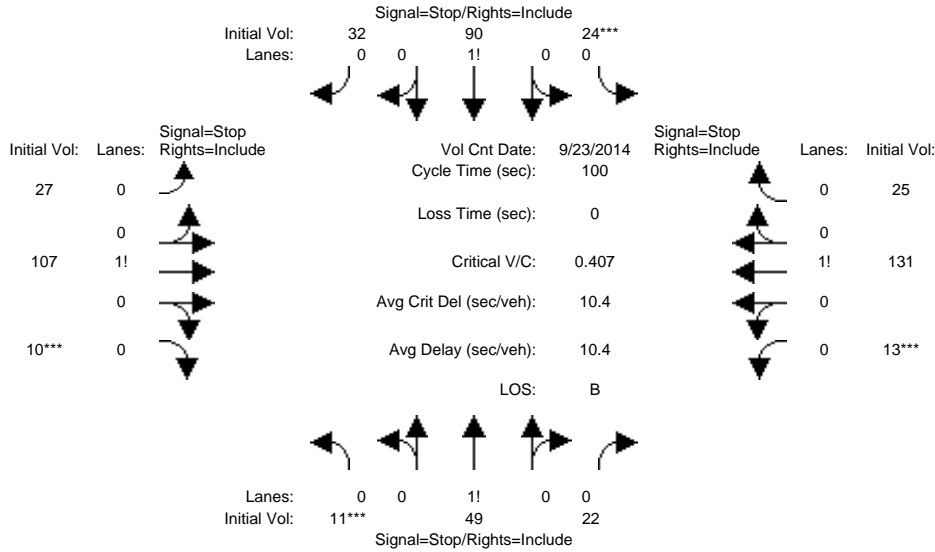
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Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing Plus Project PM

Intersection #4: Bessie Ave / W Eaton Ave



Street Name:	Bessie Ave						W Eaton Ave					
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: 23 Sep 2014 << 4:00 pm to 5:00 pm												
Base Vol:	11	47	22	19	84	26	25	102	10	13	119	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:	11	47	22	19	84	26	25	102	10	13	119	14
Added Vol:	0	2	0	5	6	6	2	5	0	0	12	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	49	22	24	90	32	27	107	10	13	131	25
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:	0.77	0.77	0.77	0.65	0.65	0.65	0.84	0.84	0.84	0.60	0.60	0.60
PHF Volume:	14	64	29	37	138	49	32	127	12	22	218	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	64	29	37	138	49	32	127	12	22	218	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
Final Volume:	14	64	29	37	138	49	32	127	12	22	218	42
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	0.60	0.27	0.16	0.62	0.22	0.19	0.74	0.07	0.08	0.77	0.15
Final Sat.:	84	373	167	108	406	145	123	486	45	53	536	102
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.34	0.34	0.34	0.26	0.26	0.26	0.41	0.41	0.41
Crit Moves:	****			****			****			****		
Delay/Veh:	9.2	9.2	9.2	10.5	10.5	10.5	9.8	9.8	9.8	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:	9.2	9.2	9.2	10.5	10.5	10.5	9.8	9.8	9.8	11.1	11.1	11.1
LOS by Move:	A	A	A	B	B	B	A	A	A	B	B	B
ApproachDel:	9.2			10.5			9.8			11.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.2			10.5			9.8			11.1		
LOS by Appr:	A			B			A			B		
AllWayAvgQ:	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.3	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #4 Bessie Ave / W Eaton Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign												
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	11	49	22	24	90	32	27	107	10	13	131	25										
Major Street Volume:							313															
Minor Approach Volume:							146															
Minor Approach Volume Threshold:	529																					

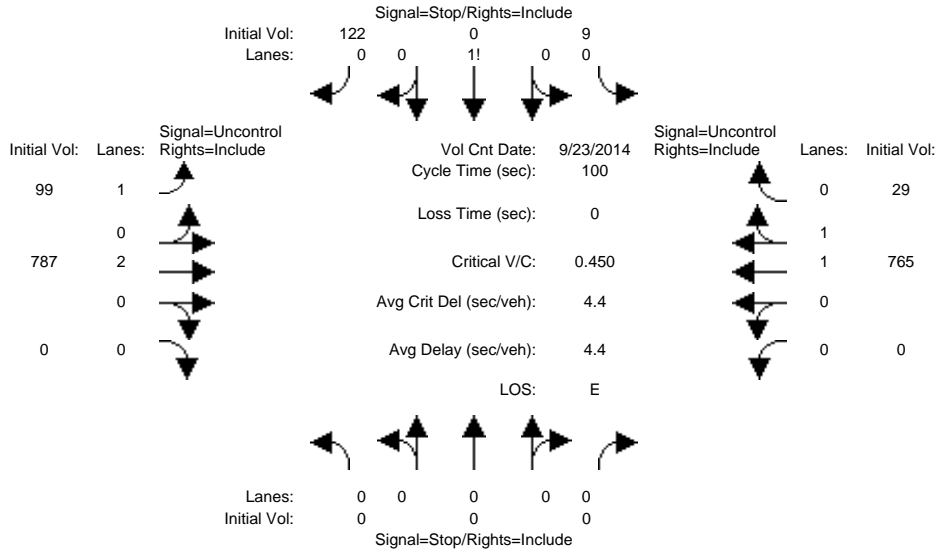
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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Project AM

Intersection #5: Bessie Ave / W 11th St (i 205)



Street Name: Bessie Ave W 11th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module, Count, Date (23 Sep 2014), and time range (7:30 am to 8:30 am). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module showing Critical Gp, FollowUpTim, and other metrics for different approaches.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for different approaches.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #5 Bessie Ave / W 11th St (i 205)
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	1	0	2	0	0	0	1	1
Initial Vol:	0	0	0	0	9	0	122		99	787	0		0	765	29	
ApproachDel:	xxxxxxx				36.4				xxxxxxx				xxxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=131]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1811]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #5 Bessie Ave / W 11th St (i 205)  
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	1	0	2	0	0	0	1	1
Initial Vol:	0	0	0	0	9	0	122		99	787	0		0	765	29	

Major Street Volume: 1680

Minor Approach Volume: 131

Minor Approach Volume Threshold: 106

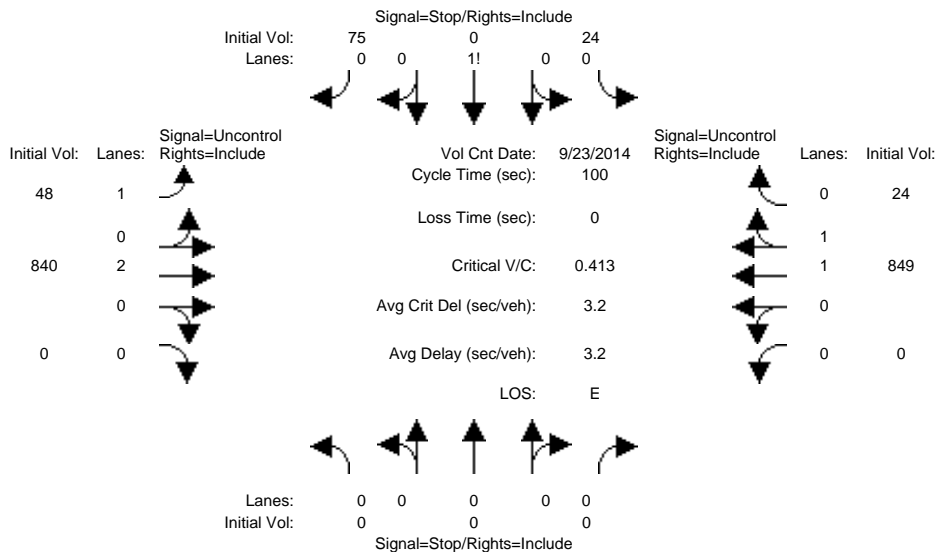
SIGNAL WARRANT DISCLAIMER

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

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Project PM

Intersection #5: Bessie Ave / W 11th St (i 205)



Street Name: Bessie Ave W 11th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module, Count, Date (23 Sep 2014), and time range (4:00 pm to 5:00 pm). Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module showing Critical Gp, FollowUpTim, and other metrics for different movements.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for various movements.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #5 Bessie Ave / W 11th St (i 205)
\*\*\*\*\*



Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	1	0	2	0	0	0	1	1
Initial Vol:	0	0	0	0	24	0	75		48	840	0		0	849	24	
ApproachDel:	xxxxxxx				46.3				xxxxxxx				xxxxxxx			

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.3]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=99]

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1860]

SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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

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

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #5 Bessie Ave / W 11th St (i 205)

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	1	0	2	0	0	0	1	1
Initial Vol:	0	0	0	0	24	0	75		48	840	0		0	849	24	

Major Street Volume: 1761

Minor Approach Volume: 99

Minor Approach Volume Threshold: 90 [less than minimum of 100]

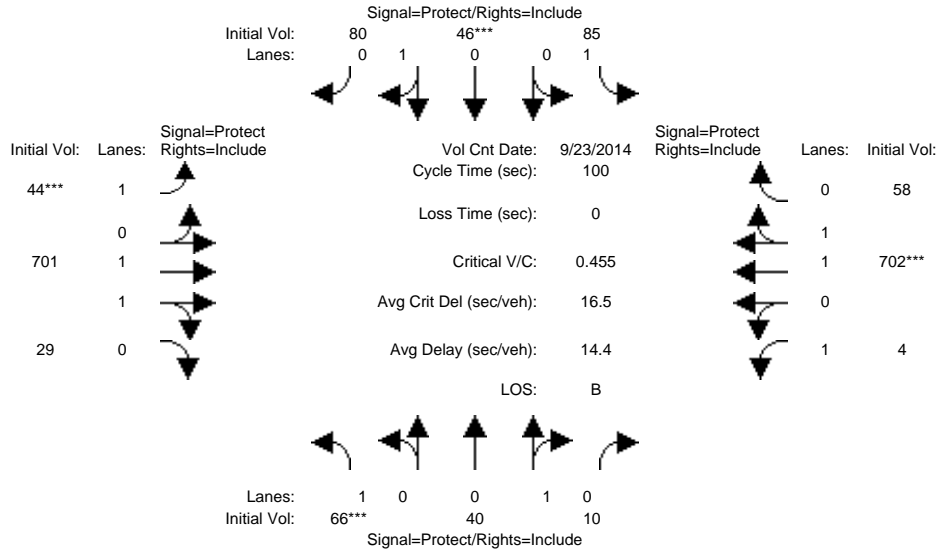
SIGNAL WARRANT DISCLAIMER

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

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

Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing Plus Project AM

Intersection #6: Parker Ave / W 11th St ( i 205)



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	Date: 23 Sep 2014 << 7:30 am to 8:30 am											
Base Vol:	66	39	10	84	46	80	44	701	29	4	701	53
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:	66	39	10	84	46	80	44	701	29	4	701	53
Added Vol:	0	1	0	1	0	0	0	0	0	0	1	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	40	10	85	46	80	44	701	29	4	701	58
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:	0.74	0.74	0.74	0.88	0.88	0.88	0.85	0.85	0.85	0.76	0.76	0.76
PHF Volume:	89	54	14	97	52	91	52	825	34	5	924	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	54	14	97	52	91	52	825	34	5	924	76
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
Final Volume:	89	54	14	97	52	91	52	825	34	5	924	76

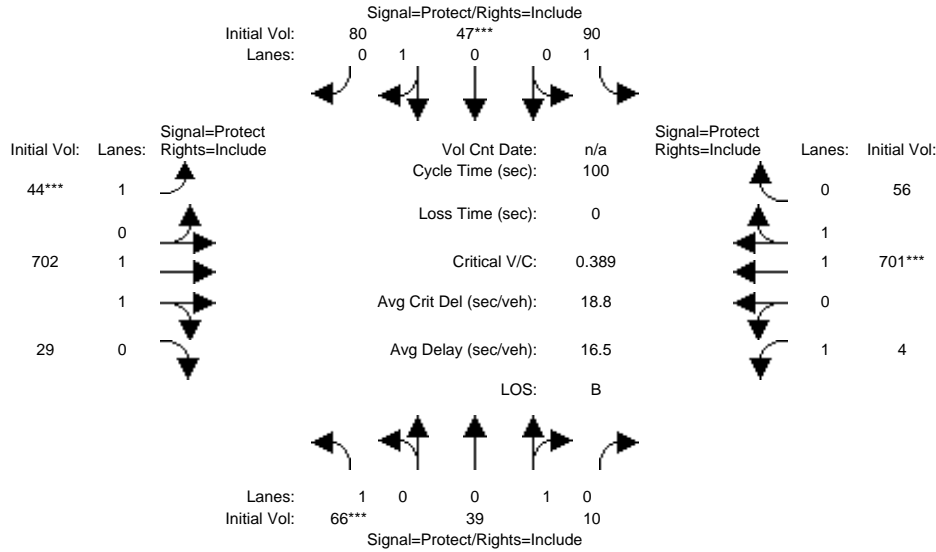
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.94	0.94	0.92	0.88	0.88	0.92	0.92	0.92	0.92	0.91	0.91
Lanes:	1.00	0.80	0.20	1.00	0.37	0.63	1.00	1.92	0.08	1.00	1.85	0.15
Final Sat.:	1753	1432	358	1753	610	1060	1753	3346	138	1753	3202	265

Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.04	0.06	0.09	0.09	0.03	0.25	0.25	0.00	0.29	0.29
Crit Moves:	****				****		****				****	
Green/Cycle:	0.11	0.12	0.12	0.18	0.19	0.19	0.06	0.69	0.69	0.01	0.63	0.63
Volume/Cap:	0.45	0.31	0.31	0.31	0.45	0.45	0.45	0.36	0.36	0.36	0.45	0.45
Uniform Del:	41.5	40.0	40.0	35.7	36.0	36.0	45.0	6.3	6.3	49.3	9.4	9.4
IncrementDel:	1.7	0.8	0.8	0.6	1.0	1.0	2.9	0.1	0.1	14.2	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.2	40.8	40.8	36.3	37.0	37.0	47.9	6.4	6.4	63.5	9.5	9.5
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:	43.2	40.8	40.8	36.3	37.0	37.0	47.9	6.4	6.4	63.5	9.5	9.5
LOS by Move:	D	D	D	D+	D+	D+	D	A	A	E	A	A
HCM2k95thQ:	6	4	4	6	9	9	4	11	11	1	16	16

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

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

Intersection #6: Parker Ave / W 11th St ( i 205)



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	66	39	10	84	46	80	44	701	29	4	701	53
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:	66	39	10	84	46	80	44	701	29	4	701	53
Added Vol:	0	0	0	6	1	0	0	1	0	0	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	39	10	90	47	80	44	702	29	4	701	56
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:	0.74	0.74	0.74	0.85	0.85	0.85	0.97	0.97	0.97	0.98	0.98	0.98
PHF Volume:	89	53	14	106	55	94	45	724	30	4	715	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	53	14	106	55	94	45	724	30	4	715	57
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
Final Volume:	89	53	14	106	55	94	45	724	30	4	715	57

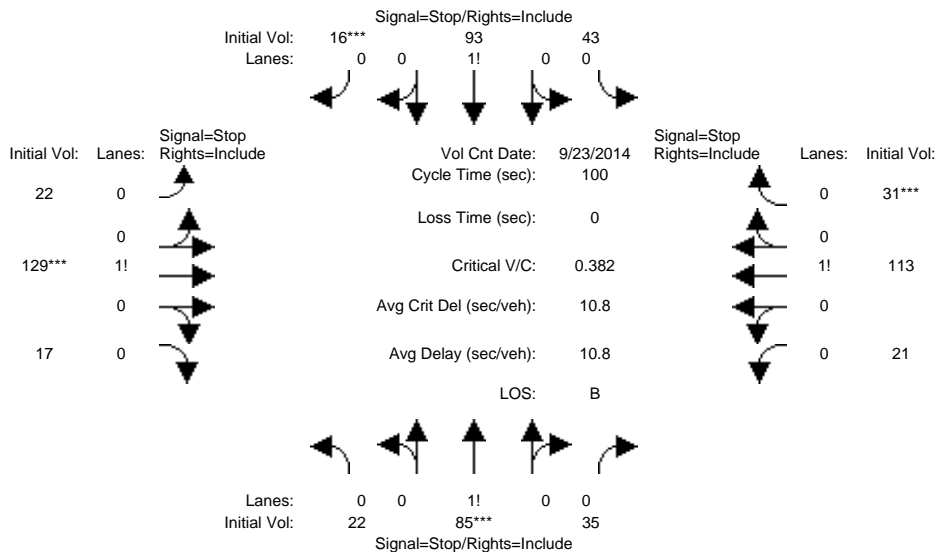
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.94	0.94	0.92	0.88	0.88	0.92	0.92	0.92	0.92	0.91	0.91
Lanes:	1.00	0.80	0.20	1.00	0.37	0.63	1.00	1.92	0.08	1.00	1.85	0.15
Final Sat.:	1753	1423	365	1753	619	1053	1753	3346	138	1753	3210	256

Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.04	0.06	0.09	0.09	0.03	0.22	0.22	0.00	0.22	0.22
Crit Moves:	****				****		****				****	
Green/Cycle:	0.13	0.14	0.14	0.22	0.23	0.23	0.07	0.63	0.63	0.01	0.57	0.57
Volume/Cap:	0.39	0.27	0.27	0.27	0.39	0.39	0.39	0.34	0.34	0.34	0.39	0.39
Uniform Del:	39.8	38.7	38.7	32.1	32.6	32.6	44.7	8.6	8.6	49.4	11.7	11.7
IncrementDel:	1.1	0.6	0.6	0.4	0.7	0.7	2.1	0.1	0.1	16.3	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.9	39.3	39.3	32.5	33.2	33.2	46.9	8.7	8.7	65.8	11.9	11.9
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:	40.9	39.3	39.3	32.5	33.2	33.2	46.9	8.7	8.7	65.8	11.9	11.9
LOS by Move:	D	D	D	C-	C-	C-	D	A	A	E	B+	B+
HCM2k95thQ:	6	4	4	6	8	8	4	11	11	1	13	13

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

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing Plus Project AM

Intersection #7: Parker Ave / Eaton Ave



Street Name:	Parker Ave						Eaton Ave					
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: 23 Sep 2014 << 7:30 am to 8:30 am												
Base Vol:	16	85	35	43	93	14	22	129	16	21	112	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	85	35	43	93	14	22	129	16	21	112	31
Added Vol:	6	0	0	0	0	2	0	0	1	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	85	35	43	93	16	22	129	17	21	113	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.74	0.74	0.74	0.80	0.80	0.80	0.68	0.68	0.68	0.73	0.73	0.73
PHF Volume:	30	115	47	54	116	20	32	190	25	29	155	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	115	47	54	116	20	32	190	25	29	155	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
Final Volume:	30	115	47	54	116	20	32	190	25	29	155	42
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	0.60	0.25	0.28	0.61	0.11	0.13	0.77	0.10	0.13	0.68	0.19
Final Sat.:	97	373	154	173	374	64	85	496	65	82	442	121
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.31	0.31	0.31	0.31	0.38	0.38	0.38	0.35	0.35	0.35
Crit Moves:	****			****			****			****		
Delay/Veh:	10.4	10.4	10.4	10.6	10.6	10.6	11.2	11.2	11.2	10.8	10.8	10.8
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:	10.4	10.4	10.4	10.6	10.6	10.6	11.2	11.2	11.2	10.8	10.8	10.8
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	10.4			10.6			11.2			10.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.4			10.6			11.2			10.8		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #7 Parker Ave / Eaton Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Initial Vol:	22	85	35	43	93	16	22	129	17	21	113	31
Major Street Volume:							333					
Minor Approach Volume:							152					
Minor Approach Volume Threshold:	513											

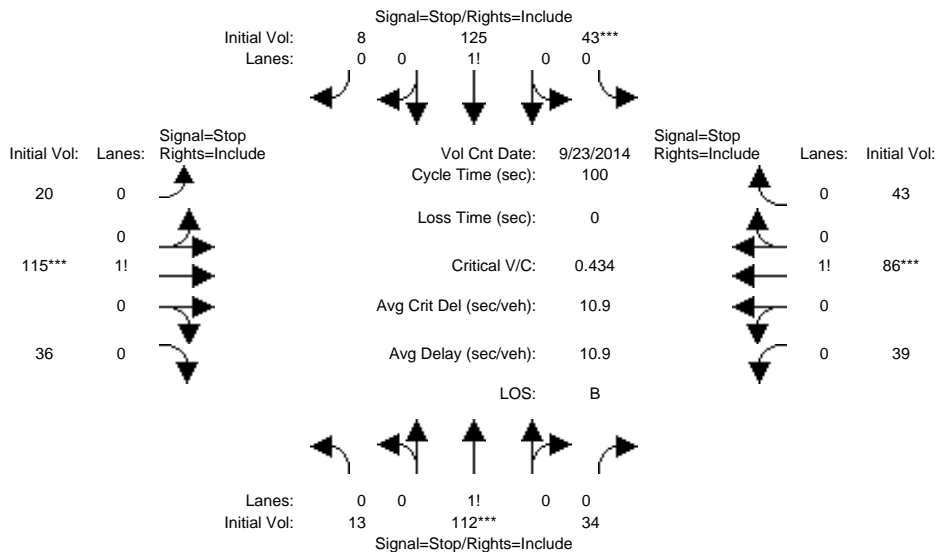
SIGNAL WARRANT DISCLAIMER

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

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

Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing Plus Project PM

Intersection #7: Parker Ave / Eaton Ave



Street Name:	Parker Ave						Eaton Ave					
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: 23 Sep 2014 << 4:30 pm to 5:30 pm	10	112	34	43	124	7	18	114	29	39	85	43
Base Vol:	10	112	34	43	124	7	18	114	29	39	85	43
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:	10	112	34	43	124	7	18	114	29	39	85	43
Added Vol:	3	0	0	0	1	1	2	1	7	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	112	34	43	125	8	20	115	36	39	86	43
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:	0.98	0.98	0.98	0.81	0.81	0.81	0.94	0.94	0.94	0.58	0.58	0.58
PHF Volume:	13	114	35	53	154	10	21	122	38	67	148	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	114	35	53	154	10	21	122	38	67	148	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	13	114	35	53	154	10	21	122	38	67	148	74
Saturation Flow Module:	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	0.71	0.21	0.24	0.71	0.05	0.12	0.67	0.21	0.23	0.51	0.26
Final Sat.:	50	434	132	152	441	28	74	428	134	155	342	171
Capacity Analysis Module:	0.26	0.26	0.26	0.35	0.35	0.35	0.29	0.29	0.29	0.43	0.43	0.43
Vol/Sat:	0.26	0.26	0.26	0.35	0.35	0.35	0.29	0.29	0.29	0.43	0.43	0.43
Crit Moves:	****			****			****			****		
Delay/Veh:	10.1	10.1	10.1	11.0	11.0	11.0	10.2	10.2	10.2	11.6	11.6	11.6
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:	10.1	10.1	10.1	11.0	11.0	11.0	10.2	10.2	10.2	11.6	11.6	11.6
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	10.1			11.0			10.2			11.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			11.0			10.2			11.6		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.7	0.7	0.7

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #7 Parker Ave / Eaton Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	0
Initial Vol:	13	112	34	43	125	8	20	115	36	39	86	43
Major Street Volume:	339											
Minor Approach Volume:	176											
Minor Approach Volume Threshold:	508											

SIGNAL WARRANT DISCLAIMER

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

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

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Project AM

Intersection #8: Parker Ave / W Beverly Pl

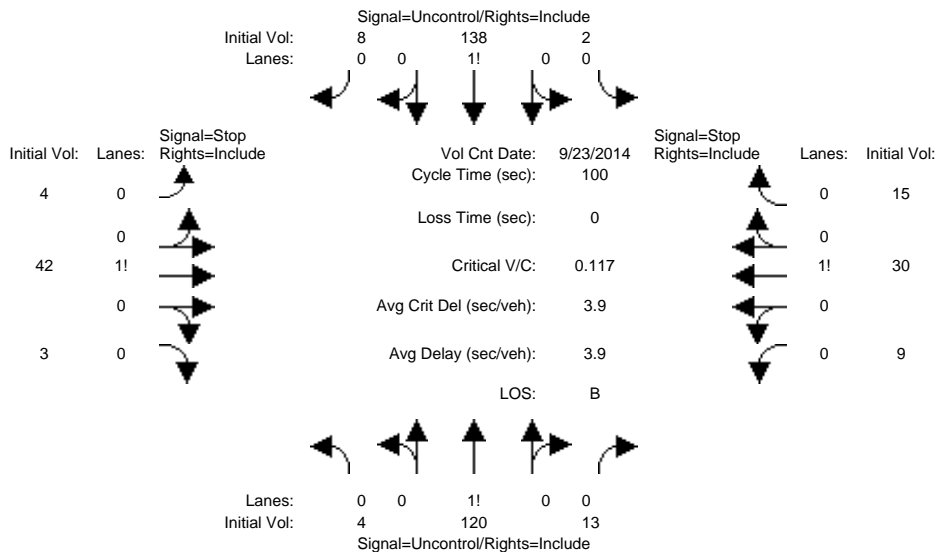


Table with columns for Street Name, Approach, Movement, Volume Module, Critical Gap Module, Capacity Module, and Level Of Service Module. It provides detailed traffic analysis data for the intersection.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #8 Parker Ave / W Beverly Pl
\*\*\*\*\*



Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	4 120 13	2 138 8	4 42 3	9 30 15
ApproachDel:	xxxxxx	xxxxxx	12.3	11.8

Approach[eastbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=49]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=388]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=54]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=388]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #8 Parker Ave / W Beverly Pl

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	4 120 13	2 138 8	4 42 3	9 30 15

Major Street Volume: 285  
Minor Approach Volume: 54  
Minor Approach Volume Threshold: 554

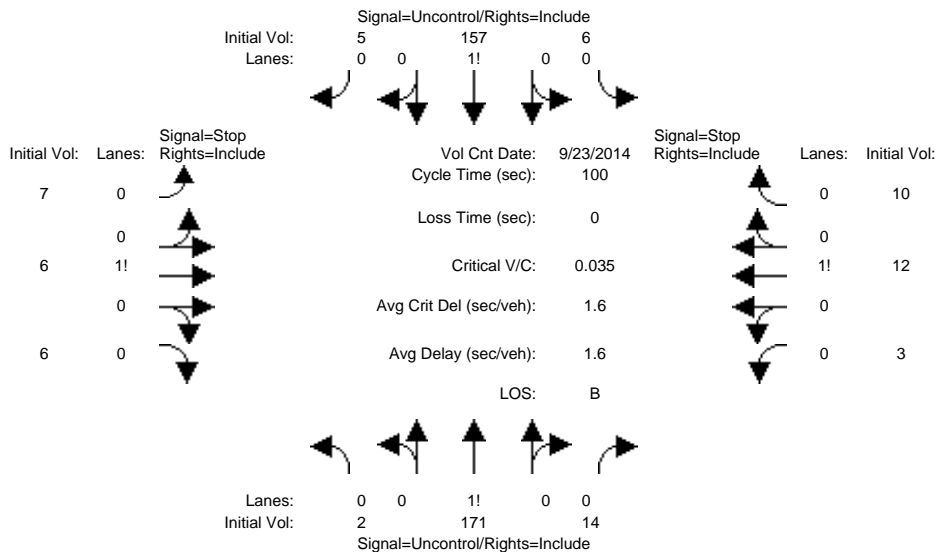
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing Plus Project PM

Intersection #8: Parker Ave / W Beverly Pl



Street Name: Parker Ave W Beverly Pl
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns for movements and rows for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module with 12 columns for movements and rows for Critical Gp and FollowUpTim.

Table for Capacity Module with 12 columns for movements and rows for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table for Level Of Service Module with 12 columns for movements and rows for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

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

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*
Intersection #8 Parker Ave / W Beverly Pl
\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	2 171 14	6 157 5	7 6 6	3 12 10
ApproachDel:	xxxxxx	xxxxxx	11.8	11.6

Approach[eastbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.1]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=19]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=399]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.1]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=25]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=4][total volume=399]  
FAIL - Total volume less than 650 for intersection  
with less than four approaches.

SIGNAL WARRANT DISCLAIMER

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

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Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*

Intersection #8 Parker Ave / W Beverly Pl

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	2 171 14	6 157 5	7 6 6	3 12 10

Major Street Volume: 355  
Minor Approach Volume: 25  
Minor Approach Volume Threshold: 496

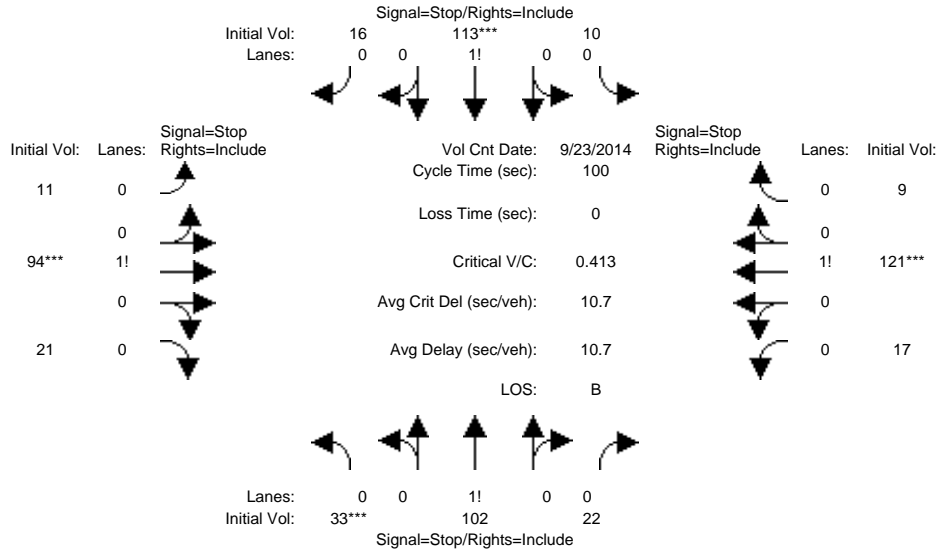
SIGNAL WARRANT DISCLAIMER

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

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Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing Plus Project AM

Intersection #9: Parker Ave / W Lowell Ave



Street Name:	Parker Ave						W Lowell Ave					
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: 23 Sep 2014 << 7:30 am to 8:30 am												
Base Vol:	33	102	22	10	112	15	11	94	21	16	121	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:	33	102	22	10	112	15	11	94	21	16	121	9
Added Vol:	0	0	0	0	1	1	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	102	22	10	113	16	11	94	21	17	121	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:	0.74	0.74	0.74	0.82	0.82	0.82	0.75	0.75	0.75	0.54	0.54	0.54
PHF Volume:	45	138	30	12	138	20	15	125	28	31	224	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	138	30	12	138	20	15	125	28	31	224	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
Final Volume:	45	138	30	12	138	20	15	125	28	31	224	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:	0.21	0.65	0.14	0.07	0.81	0.12	0.09	0.74	0.17	0.12	0.82	0.06
Final Sat.:	134	414	89	45	508	72	56	475	106	76	543	40
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.27	0.27	0.27	0.26	0.26	0.26	0.41	0.41	0.41
Crit Moves:	****				****				****			
Delay/Veh:	10.6	10.6	10.6	10.1	10.1	10.1	9.9	9.9	9.9	11.5	11.5	11.5
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:	10.6	10.6	10.6	10.1	10.1	10.1	9.9	9.9	9.9	11.5	11.5	11.5
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
ApproachDel:	10.6			10.1			9.9			11.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.6			10.1			9.9			11.5		
LOS by Appr:	B			B			A			B		
AllWayAvgQ:	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #9 Parker Ave / W Lowell Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign				
Lanes:	0	0	1!	0	0	1!	0	0	0	0	0	1!	0	0
Initial Vol:	33	102	22	10	113	16	11	94	21	17	121	9		
Major Street Volume:	296													
Minor Approach Volume:	147													
Minor Approach Volume Threshold:	544													

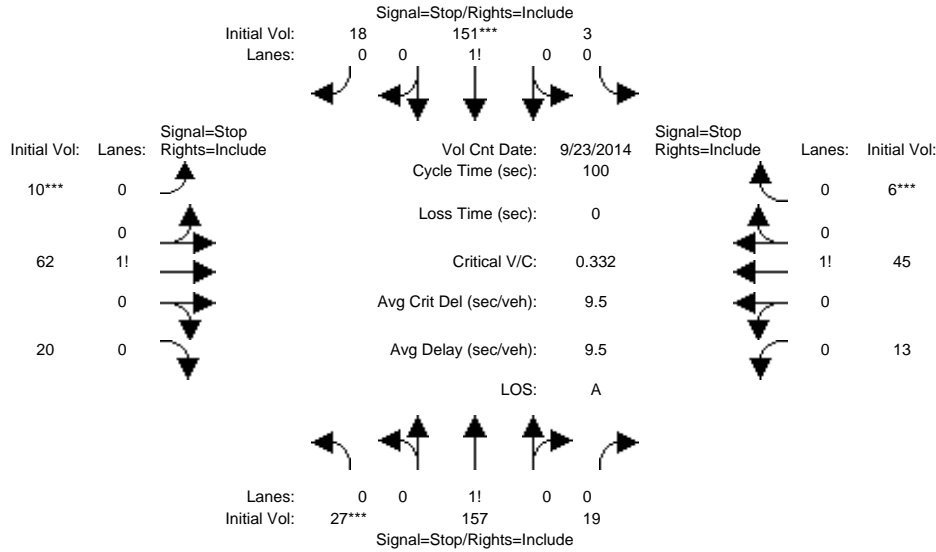
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report  
 2000 HCM 4-Way Stop (Future Volume Alternative)  
 Existing Plus Project PM

Intersection #9: Parker Ave / W Lowell Ave



Street Name:	Parker Ave						W Lowell Ave					
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: 23 Sep 2014 << 5:00 pm to 6:00 pm												
Base Vol:	27	156	17	3	151	18	9	62	20	12	45	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	156	17	3	151	18	9	62	20	12	45	6
Added Vol:	0	1	2	0	0	0	1	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	157	19	3	151	18	10	62	20	13	45	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.88	0.88	0.88	0.58	0.58	0.58
PHF Volume:	33	189	23	4	182	22	11	70	23	22	78	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	189	23	4	182	22	11	70	23	22	78	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	33	189	23	4	182	22	11	70	23	22	78	10
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	0.78	0.09	0.02	0.88	0.10	0.11	0.67	0.22	0.20	0.71	0.09
Final Sat.:	98	569	69	13	641	76	72	444	143	132	457	61
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.28	0.28	0.28	0.16	0.16	0.16	0.17	0.17	0.17
Crit Moves:	****			****			****			****		
Delay/Veh:	9.9	9.9	9.9	9.5	9.5	9.5	8.9	8.9	8.9	9.1	9.1	9.1
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:	9.9	9.9	9.9	9.5	9.5	9.5	8.9	8.9	8.9	9.1	9.1	9.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.9			9.5			8.9			9.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			9.5			8.9			9.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.  
 Peak Hour Volume Signal Warrant Report [Urban]  
 \*\*\*\*\*  
 Intersection #9 Parker Ave / W Lowell Ave

\*\*\*\*\*

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	0
Initial Vol:	27	157	19	3	151	18	10	62	20	13	45	6
Major Street Volume:							375					
Minor Approach Volume:							92					
Minor Approach Volume Threshold:	481											

SIGNAL WARRANT DISCLAIMER

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## INTRODUCTION

The purpose of this analysis is to determine if the proposed Sutter Medical Office Building project would result in a significant noise impact to sensitive receptors located around the project site.

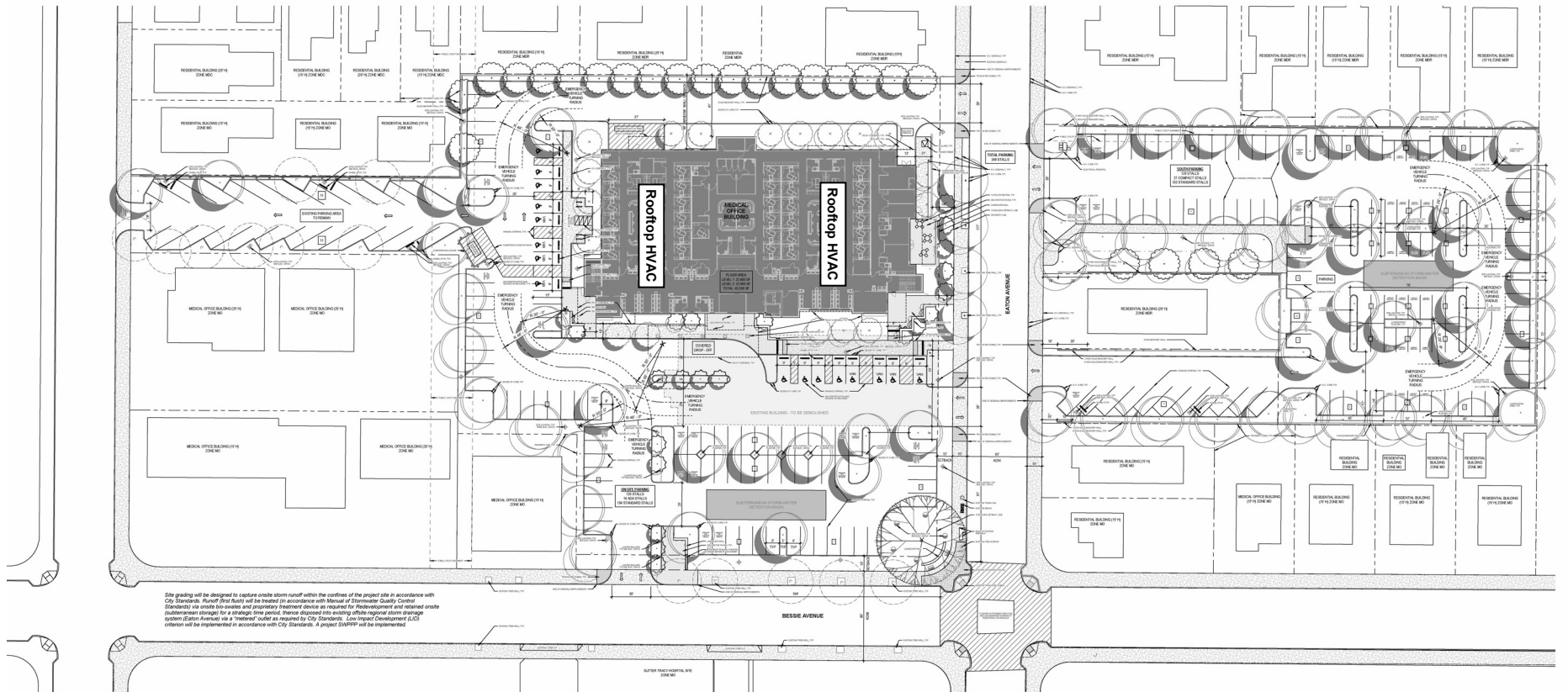
Specifically, the following thresholds of significance were used:

- Traffic noise levels exceeding 60 dB  $L_{dn}$  where existing noise levels are less than 60 dB  $L_{dn}$  at residential uses;
- Increased traffic noise levels of 5 dB where existing noise levels are less than 60 dB  $L_{dn}$  at residential uses;
- Increased traffic noise levels of 3 dB where existing noise levels exceed 60 dB  $L_{dn}$  at residential uses;
- Project-generated noise levels exceeding 60 dB  $L_{dn}$  at residential uses; and
- Project-generated noise levels exceeding 55 dBA  $L_{eq}$  at residential uses.

The proposed project is located at 445 W. Eaton Avenue with a surface parking lot to be located at 418, 424, 432, and 434 W. Eaton Avenue in the City of Tracy, California.

The project includes the demolition of a three-story 25,000 square foot medical office building and residential buildings and construction of a two-story, 45,500 square foot medical office building and associated parking areas onsite and offsite. The project site is Zoned Medical Office and designated Office in the General Plan. The site is surrounded on two sides by the Medium Density Residential zone (with existing residences). Surrounding land uses include a mix of residential and medical office uses.

Figure 1 shows the project site plan.



**Tracy Medical Office Building**  
**Figure: 1 Medical Office Building Site Plan**

## ENVIRONMENTAL SETTING

### ***Background Information on Noise***

#### *Fundamentals of Acoustics*

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level ( $L_{eq}$ ), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptor,  $L_{dn}$ , and shows very good correlation with community response to noise.

The day/night average level ( $L_{dn}$ ) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures.

Table 1 lists several examples of the noise levels associated with common situations. Appendix A provides a summary of acoustical terms used in this report.

**TABLE 1: TYPICAL NOISE LEVELS**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. November 2009.

### Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

## EXISTING CONDITIONS

The existing noise environment on the project site is defined primarily by traffic on the local roadway network.

### Existing Noise Receptors

Some land uses are considered more sensitive to ambient noise levels than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved.

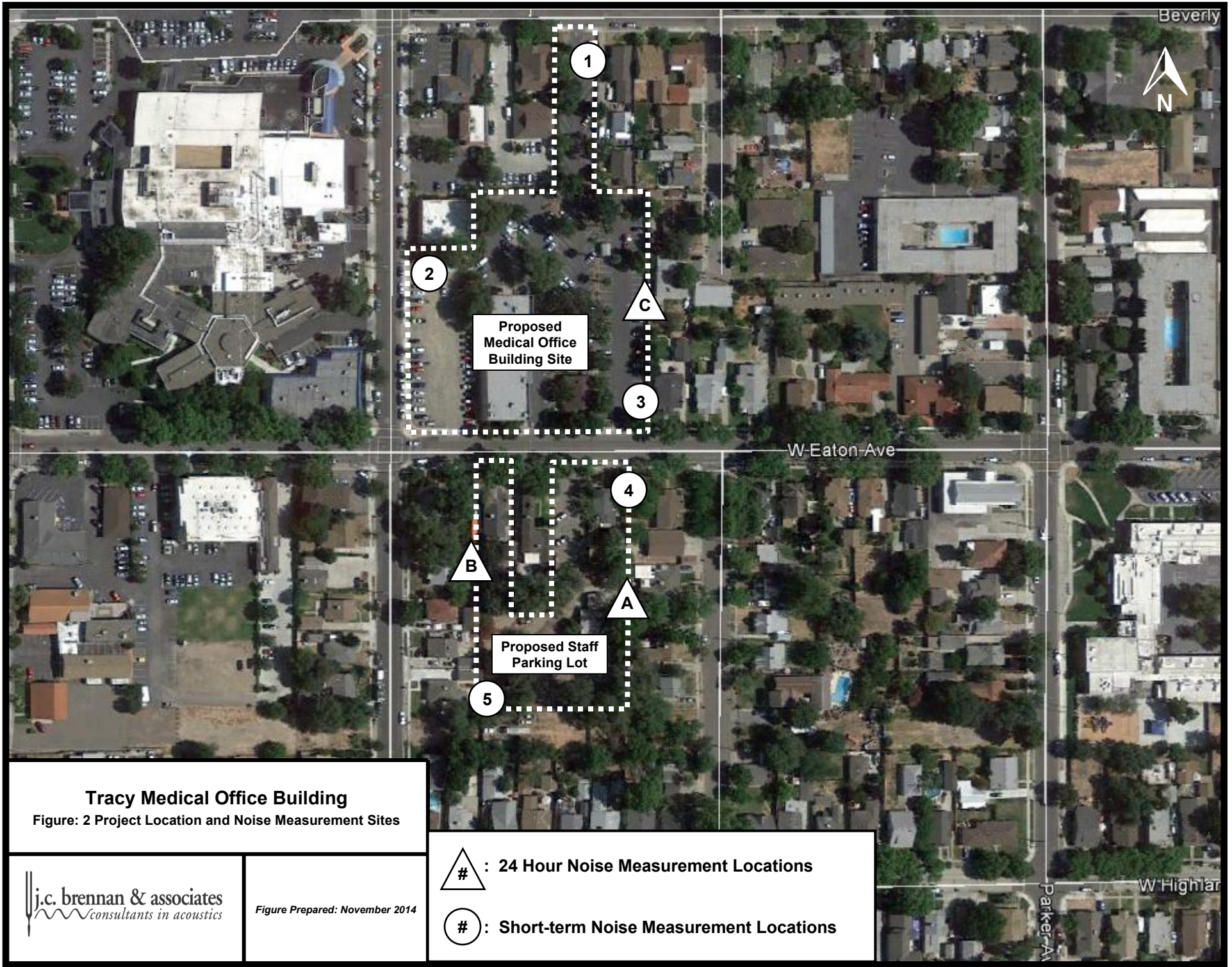
In the vicinity of the project site, sensitive land uses include existing single-family residential uses. These land uses could potentially experience noise impacts associated with project construction, daily operations, and/or increased traffic from project circulation.

### Existing Ambient Noise Levels



To quantify the existing ambient noise environment in the project vicinity, four continuous 24-hour noise level measurements were conducted on project site, adjacent to the nearest sensitive receptors, on Monday November 3, 2014 and Tuesday November 4, 2014. The noise measurement locations are shown on Figure 2. The noise level measurement survey results are provided in Table 2. See Appendix B for the complete 24-hour noise measurement results.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted  $L_{max}$ , represents the highest noise level measured. The average value, denoted  $L_{eq}$ , represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted  $L_{50}$ , represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).



**Tracy Medical Office Building**  
 Figure: 2 Project Location and Noise Measurement Sites

-  : 24 Hour Noise Measurement Locations
-  : Short-term Noise Measurement Locations



**TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA**

Site	Date	L <sub>dn</sub>	Average <sup>1</sup> Measured Hourly Noise Levels					
			Daytime (7am-7 pm)			Nighttime (10pm-7am)		
			L <sub>eq</sub>	L <sub>50</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>50</sub>	L <sub>max</sub>
<b>Continuous 24 hour noise level measurements</b>								
LT-A	11/3/14-11/4/14	55	49	46	64	48	45	60
LT-B	11/3/14-11/4/14	54	50	48	68	46	44	61
LT-C	11/3/14-11/4/14	55	50	48	65	48	46	60
<b>Short-Term Noise Level Measurements</b>								
Site	Date	Time	Duration	L <sub>eq</sub>	L <sub>max</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>
ST-1	11/4/14	3:30 p.m.	10 min	50	63	53	48	47
ST-2	11/4/14	3:42 p.m.	10 min	54	71	57	52	49
ST-3	11/4/14	3:57 p.m.	10 min	61	71	65	59	49
ST-4	11/4/14	4:16 p.m.	10 min	55	71	58	50	45
ST-5	11/4/14	4:39 p.m.	10 min	70	77	72	69	62

1. Average values reported are the average of the hourly measured values over the daytime or nighttime period.

Source: j.c. brennan & associates, Inc., 2014.

### Existing Roadway Noise Levels

To predict noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is used in conjunction with the Calveno reference noise emission curves, and accounts for vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project site. The FHWA Model was developed to predict hourly  $L_{eq}$  values for free-flowing traffic conditions. To calculate  $L_{dn}$ , average daily traffic (ADT) volume data is adjusted based on the assumed day/night distribution of traffic on the project roadways.

Traffic volumes for existing conditions were obtained by TJKM Transportation Consultant (*Traffic Impact Study, Sutter Medical Office Building*, November 12, 2014) in the form of peak hour intersection movements. The peak hour traffic volumes were compiled into segment volumes and converted into daily traffic volumes using a factor of 10. Truck usage and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may receive shielding from noise barriers and/or buildings, or may be located at distances which vary from the assumed calculation distance. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project area roadway segments analyzed in this report.

Table 3 summarizes the modeled traffic noise levels at the nearest sensitive receptors along each roadway segment in the Project area. Appendix C provides the complete inputs and results of the FHWA traffic modeling.

**TABLE 3: EXISTING NOISE LEVELS AND DISTANCES TO CONTOURS**

Roadway	Segment	Exterior Noise Level, L <sub>dn</sub>	Distance to Contours (feet)		
			70 dB	65 dB	60 dB
W. Lowell	West of Bessie	54.9	5	11	23
W. Lowell	Bessie to Parker	53.6	4	9	19
W. Lowell	East of Parker	52.6	3	7	16
W. Beverly	West of Bessie	46.8	1	3	7
W. Beverly	Bessie to Parker	46.6	1	3	6
W. Beverly	East of Parker	48.1	2	4	8
W. Eaton	West of S. Tracy	52.2	3	7	15
W. Eaton	S. Tracy to Bessie	55.7	6	12	26
W. Eaton	Bessie to Parker	55.2	5	11	24
W. Eaton	East of Parker	56.5	6	14	29
W 11th Street	West of Bessie	65.4	25	53	114
W 11th Street	Bessie to Parker	64.9	23	49	106
W 11th Street	East of Parker	64.7	22	48	103
Tracy	North of W. Eaton	63.3	18	39	83
Tracy	South of W. Eaton	63.3	18	38	82
Bessie	N. of W. Lowell	54.4	5	10	21
Bessie	W. Lowell to W. Beverly	54.1	4	9	20
Bessie	W. Beverly to W. Eaton	54.3	5	10	21
Bessie	W. Eaton to W 11th	53.2	4	8	17
Parker	N. of W. Lowell	56.4	6	13	29
Parker	W. Lowell to W. Beverly	56.5	6	13	29
Parker	W. Beverly to W. Eaton	56.4	6	13	29
Parker	W. Eaton to W 11th	56.4	6	13	29

Source: FHWA-RD-77-108 with inputs from Fehr & Peers and j.c. brennan & associates, Inc. 2014.

## REGULATORY CONTEXT

### ***City of Tracy General Plan Noise Element***

The City General Plan includes the following goals, objectives, policies and actions regarding noise that are applicable to the proposed Project:

- |                 |  |
|-----------------|--|
| Goal N-1        | A Citizenry protected from excessive noise.  |
| Objective N-1.1 | Ensure appropriate exterior and interior noise levels for new land uses.   |
| Policy P1       | Noise sensitive land uses shall not be located in areas with noise levels that exceed those considered normally acceptable for each land use unless measures can be implemented to reduce noise to acceptable levels.  |
| Policy P2       | Land uses shall require appropriate interior noise environments when located in areas adjacent to major noise generators.  |
| Policy P8       | Measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all development projects. Acceptable, conditionally acceptable and unacceptable noise levels are presented in Figure 9-3 [Figure 3 of this report].  |
| Objective N-1.2 | Control sources of excessive noise.  |
| Policy P1       | The City's Noise Ordinance, as revised from time to time, shall prohibit the generation of excessive noise.  |
| Policy P2       | Mitigation measures shall be required for new development projects that exceed the following criteria: <ul style="list-style-type: none"><li>• Cause the <math>L_{dn}</math> at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level.</li><li>• Cause the <math>L_{dn}</math> at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable."</li><li>• Cause new noise levels to exceed the city of Tracy Noise Ordinance limits.</li></ul> |

Land Use Category	Exterior Noise Exposure (L <sub>dn</sub> )					
	55	60	65	70	75	80
Single-Family Residential						
Multi-Family Residential, Hotels, and Motels		(a)				
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						

(a) Residential development sites exposed to noise levels exceeding 60 L<sub>dn</sub> shall be analyzed following protocols in Appendix Chapter 12, Section 1208A, Sound Transmission Control, California Building Code.



**Normally Acceptable**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.



**Conditionally Acceptable**

Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.



**Unacceptable**

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

FIGURE 9-3

FIGURE 3 – CITY OF TRACY COMMUNITY NOISE EXPOSURE GUIDELINES

Policy P3 Pavement surfaces that reduce noise from roadways should be considered as paving or re-pavement opportunities arise.

Policy P4 All construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 AM to 7:00 PM. In addition, the following construction noise control measures shall be include as requirements at construction sites to minimize construction noise impacts:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.

Action A1 Enforce Section 27007 of the California Motor Vehicle Code that prohibits amplified sound that can be heard 50 or more feet from a vehicle.

Action A2 Enforce Section 27150 of the California Motor Vehicle Code that addresses excessive exhaust noise.

Objective N-1.3 Consider noise issues in the Development Review process.

Policy P1 Development projects shall be evaluated for potential noise impacts and conflicts as part of the Development Review process.

Policy P2 Significant noise impacts shall be mitigated as a condition of project approval.

Policy P3 New development projects shall have an acoustical specialist prepare a noise analysis with recommendations for design mitigation if a noise-producing project is proposed near existing or planned noise-sensitive uses.

Policy P4 Proposed noise sensitive projects within noise-impacted areas shall submit acoustical studies and provide necessary mitigation from noise.

Policy P5 Site design techniques shall be considered as the primary means to minimize noise impacts as long as they do not conflict with the goals of the Community Character Element. Techniques include:

- Designing landscaped building setbacks to serve as a buffer between the noise source and receptor.

- Placing noise-tolerant land uses, such as parking lots, maintenance facilities, and utility areas between the noise source, such as highways and railroad tracks, and receptor.
- Orienting buildings to shield noise sensitive outdoor spaces from a noise source.
- Locating bedrooms or balconies on the sides of buildings facing away from noise sources.
- Utilizing noise barriers (e.g., fences, walls, or landscaped berms) to reduce adverse noise levels in noise-sensitive outdoor activity areas.

Policy P6

The City shall seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100 feet from the centerline of the railroad tracks whenever feasible. The development of vibration-sensitive buildings within 100 feet from the centerline of the railroad tracks would require a study demonstrating that ground borne vibration issues associated with rail operations have been adequately addressed (i.e., through building siting or construction techniques).

**City of Tracy Municipal Code**

In addition to the standards set forth within the City General Plan, Title 4.12, Article 9, *Noise Control Ordinance*, of the City's Municipal Code provides the following General Sound Level Limits:

- Residential Districts have a noise limit of 55 dBA - (one hour average,  $L_{eq}$ )
- Commercial Districts have a noise limit of 65 dBA - (one hour average,  $L_{eq}$ )
- Industrial Districts have a noise limit of 75 dBA - (one hour average,  $L_{eq}$ )
- Agricultural Districts have a noise limit of 75 dBA - (one hour average,  $L_{eq}$ )
- Aggregate Mineral Overlay Zone have a noise limit of 75 dBA - (one hour average,  $L_{eq}$ )

When property lines form the joint boundary of two district zones, the ordinance states that the sound level limit shall be the arithmetic mean of the limit applicable to each of the two zones.

The City's Municipal Code, Title 4.12, Article 9, *Noise Control Ordinance*, provides the following construction and operational noise standards:

Construction Noise Prohibition

The operation of pile drivers, hammers, etc. between the hours of 10:00 PM. and 7:00 AM of any pneumatic or air hammer, pile driver, steam shovel, derrick, steam,

or electric hoist, parking lot cleaning equipment or other appliance, the use of which is attended by loud or unusual noise.

#### Business and Residential Relationships

1. Delivery vehicles shall have their engines turned off when stationary during regular business hours (6:00 AM to 11:00 PM).
2. It is unlawful for stores to be loading, unloading, opening or other handling of boxes, crates, containers, building materials, garbage cans, other similar objects and trash compactor operations between the hours of 10:00 PM and 7:00 AM in an area between a business and residential in such a manner to cause a noise disturbance across a residential property line or at any time to violate the general sound level limits.
3. Store deliveries by motorized refrigeration systems shall not be left running between the hours of 10:00 PM and 7:00 AM within seventy-five feet of a residential zone, residential use, or sleeping quarters.

Note that the noise ordinance requirements cannot be applied to mobile noise sources, such as heavy trucks, when traveling on public roadways. Federal and state laws preempt control of mobile noise sources on public roads and airports.



## PROJECT-GENERATED NOISE

### Construction Noise

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise-sensitive areas. Noise levels from construction equipment are shown in Table 4.

Annoyance due to construction activities primarily occurs when: 1) construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours); 2) the construction occurs in areas immediately adjoining noise-sensitive land uses; or 3) when construction lasts over extended periods of time. Noise generated by construction would be the greatest during site grading activities and excavation for underground utilities.

Activities involved in construction would generate maximum noise levels, as indicated in Table 4, ranging from 76 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A primary project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would occur primarily during daytime hours.

**TABLE 4: CONSTRUCTION EQUIPMENT NOISE**

Type of Equipment	Predicted Noise Levels, L <sub>max</sub> dB				Distances to Noise Contours (feet)	
	Noise Level at 50'	Noise Level at 100'	Noise Level at 200'	Noise Level at 400'	70 dB L <sub>max</sub> contour	65 dB L <sub>max</sub> contour
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

Construction activities associated with the proposed project will occur at distances ranging between approximately 15 feet (parking lot and sound wall construction) to 50 feet or more (building construction) from the nearest noise-sensitive receptors. Construction noise associated with parking lots would be similar to those associated with a public works projects, such as a roadway widening or paving project. Once sound wall are constructed, construction noise levels would be reduced by approximately 5-10 dB depending on the type and location of construction activity.

As stated above, noise sensitive receptors near the construction site would, at times, experience elevated noise levels from construction activities; however, construction-related noise generally would occur during daytime hours only. General Plan Noise Element Policy 4 (Goal N-1.2) establishes the following construction requirements:

*All construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 a.m. to 7:00 p.m. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts:*

- *Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.*
- *Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.*
- *Utilize “quiet” air compressors and other stationary noise sources where technology exists.*

Implementation of these required measures (i.e., engine muffling, placement of construction equipment, and strategic stockpiling and staging of construction vehicles) and compliance with the City Municipal Code requirements, would serve to further reduce exposure to construction noise levels. Adherence to City General Plan, City Municipal Code Title 4.12, Article 9 (Noise Control Ordinance), would minimize any impacts from noise during construction. Therefore, no additional noise control measures would be required.

### **Traffic Noise at Sensitive Receptors**

Traffic generated by the Proposed Project could generate traffic noise increases. However, these increases would not exceed the City's substantial increase criteria. Additionally, the proposed project would not cause exceedances of the City of Tracy 60 dB  $L_{dn}$  exterior noise level standard for residential uses.

To predict noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is used in conjunction with the Calveno reference noise emission curves, and accounts for vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project site. The FHWA Model was developed to predict hourly  $L_{eq}$  values for free-flowing traffic conditions. To calculate  $L_{dn}$ , average daily traffic (ADT) volume data is adjusted based on the assumed day/night distribution of traffic on the project roadways.

Traffic volumes for existing conditions were obtained from TJKM (November 2014) in the form of peak hour intersection movements. The peak hour traffic volumes were compiled into segment volumes and converted into daily traffic volumes using a factor of 10. The project contribution to ADT traffic volumes was converted from peak hour to daily volumes using a multiplication factor of 10. Truck usage and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may receive shielding from noise barriers and/or buildings, or may be located at distances which vary from the assumed calculation distance. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project area roadway segments analyzed in this report.

Table 5 shows the predicted increases in traffic noise levels on the local roadway network for existing conditions which would result from the Proposed Project. Appendix C provides the complete inputs and results of the FHWA traffic noise prediction model.

**TABLE 5: PREDICTED TRAFFIC NOISE LEVELS AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES (EXISTING TRAFFIC CONDITIONS)**

Roadway	Segment	Predicted L <sub>dn</sub> @ Closest Sensitive Receptors – 1 <sup>st</sup> Floor Outdoor Activity Areas				
		Existing	Existing + Project	Change	Criteria	Significant?
W. Lowell	West of Bessie	54.9	55.6	0.7	+5 dB	No
W. Lowell	Bessie to Parker	53.6	53.7	0.1	+5 dB	No
W. Lowell	East of Parker	52.6	52.8	0.2	+5 dB	No
W. Beverly	West of Bessie	46.8	47.1	0.3	+5 dB	No
W. Beverly	Bessie to Parker	46.6	47.1	0.5	+5 dB	No
W. Beverly	East of Parker	48.1	48.1	0.0	+5 dB	No
W. Eaton	West of S. Tracy	52.2	52.2	0.0	+5 dB	No
W. Eaton	S. Tracy to Bessie	55.7	56.4	0.7	+5 dB	No
W. Eaton	Bessie to Parker	55.2	55.7	0.5	+5 dB	No
W. Eaton	East of Parker	56.5	56.6	0.1	+5 dB	No
W 11th Street	West of Bessie	65.4	65.4	0.0	+3 dB	No
W 11th Street	Bessie to Parker	64.9	64.9	0.0	+3 dB	No
W 11th Street	East of Parker	64.7	64.8	0.1	+3 dB	No
Tracy	North of W. Eaton	63.3	63.3	0.0	+3 dB	No
Tracy	South of W. Eaton	63.3	63.4	0.1	+3 dB	No
Bessie	N. of W. Lowell	54.4	54.6	0.2	+5 dB	No
Bessie	W. Lowell to W. Beverly	54.1	55.0	0.9	+5 dB	No
Bessie	W. Beverly to W. Eaton	54.3	55.6	1.3	+5 dB	No
Bessie	W. Eaton to W 11th	53.2	53.6	0.4	+5 dB	No
Parker	N. of W. Lowell	56.4	56.4	0.0	+5 dB	No
Parker	W. Lowell to W. Beverly	56.5	56.6	0.1	+5 dB	No
Parker	W. Beverly to W. Eaton	56.4	56.5	0.1	+5 dB	No
Parker	W. Eaton to W 11th	56.4	56.7	0.3	+5 dB	No

Source: j.c. brennan & associates, Inc., Inc., FHWA RD-77-108 Traffic Noise Prediction Model and TJKM 2014.

The Table 5 data indicate that some of the noise sensitive receptors located along the project-area roadways are currently exposed to exterior traffic noise levels exceeding the City of Tracy 60 dB  $L_{dn}$  exterior noise level standard for residential uses. These receptors will continue to experience elevated exterior noise levels under existing conditions, with or without the proposed project.

The project will not cause increases in traffic noise levels exceeding: 1) 60 dB  $L_{dn}$  where existing noise levels are less than 60 dB  $L_{dn}$ , 2) the City's 3 dB threshold where existing noise levels exceed 60 dB  $L_{dn}$  or, 3) the City's 5 dB threshold where existing noise levels are less than 60 dB  $L_{dn}$  at residential uses. Therefore, no additional noise control measures would be required.

### ***Parking Lot Noise Generation***

As a means of determining the noise levels due to parking lot activities, j.c. brennan & associates, Inc., utilized noise level data collected for previous parking lot studies, and project trip generations supplied by TJKM (November 2014).

#### Primary Parking Lot – North of Eaton Avenue

The primary patient parking lot would be located on the west side of the proposed two-story medical office building. Additionally, an 8-foot tall masonry wall would be located at the east property line of the project site. Therefore, the residential uses to the east will be substantially shielded from parking lot activities occurring on the west side of the proposed medical office building.

Based upon the project traffic study, the total PM peak hour project trips would be 161. For the purpose of this analysis, j.c. brennan & associates, Inc. conservatively assumed that half of the total peak hour parking lot activity would occur at the north end of the parking area, and would not be shielded by the proposed two-story medical office building.

A typical SEL due to automobile arrivals/departures, including car doors slamming and people conversing is approximately 71 dB, at a distance of 50 feet. Based upon the project traffic study, half of the PM peak hour trip generation for the project is 81. Parking lot noise levels were determined using the following formula.

$$\text{Peak Hour } L_{eq} = \text{SEL} + 10\log(N) - 35.6, \text{ where:}$$

The SEL is the mean sound exposure level (SEL) for an automobile arrival or departure, N is the number of parking related operations in a peak hour (N is 81 for this portion of the project), 35.6 is 10 times the logarithm of the number of seconds in the peak hour.

The nearest residential uses would be located approximately 50 feet from the center of the parking region located on the north side of the proposed medical office building. Using the equation and operations data described above, the proposed parking lot would result in a peak hour noise level of approximately 47 dB  $L_{eq}$  at the nearest residential uses, accounting for the proposed 8-foot tall CMU wall. This would comply with the City of Tracy Noise Ordinance hourly standard of 55 dBA  $L_{eq}$  for residential uses. Appendix D shows the complete noise barrier calculation inputs and results.

Assuming that parking lot activity operated at this level continuously between the hours of 7:00 am to 9:00 pm, the day/night average ( $L_{dn}$ ) would be 45 dBA  $L_{dn}$ . This level would comply with the City's 60 dB  $L_{dn}$  noise level standard for residential uses. Therefore, no additional noise control measures would be required.

#### Staff Parking Lot – South of Eaton Avenue

The proposed staff parking lot would include 129 parking spaces. This analysis assumes that the parking lot could fill or empty in a one hour period.

A typical SEL due to automobile arrivals/departures, including car doors slamming and people conversing is approximately 71 dB, at a distance of 50 feet. Based upon the parking lot filling or emptying in a one hour period, the peak hour trip generation would be 129. Parking lot noise levels were determined using the following formula.

$$\text{Peak Hour } L_{eq} = \text{SEL} + 10\log(N) - 35.6, \text{ where:}$$

The SEL is the mean sound exposure level (SEL) for an automobile arrival or departure, N is the number of parking related operations in a peak hour (N is 129), 35.6 is 10 times the logarithm of the number of seconds in the peak hour.

The nearest residential uses would be located approximately 90 feet from the center of the staff parking lot. Using the equation and operations data described above, the proposed parking lot would result in a peak hour noise level of approximately 44 dB  $L_{eq}$  at the nearest residential uses, accounting for the proposed 8-foot tall CMU wall. This would comply with the City of Tracy Noise Ordinance hourly standard of 55 dBA  $L_{eq}$  for residential uses. Appendix D shows the complete noise barrier calculation inputs and results.

Assuming that parking lot activity operated at this level continuously between the hours of 7:00 am to 9:00 pm, the day/night average ( $L_{dn}$ ) would be 42 dBA  $L_{dn}$ . This level would comply with the City's 60 dB  $L_{dn}$  noise level standard for residential uses. Therefore, no additional noise control measures would be required.

### ***Mechanical Equipment Noise***

The proposed project will include rooftop mechanical equipment. This equipment will be shielded from view by a mechanical screen wall which will stand approximately 9-feet in height relative to the roof elevation. The primary rooftop equipment will include two 75-ton packaged rooftop units. The units will be located at the approximate rooftop locations shown on Figure 1.

Based upon preliminary selections, these units will have a sound power rating of 102 dBA each, for a total of 105 dBA with both units operating. Based upon the project site plan, the two mechanical units would be located approximately 100 feet from the nearest residential property line to the east, at an elevation of approximately 30 feet relative to the adjacent residences. Based upon this distance and screening due to the proposed mechanical screen wall, HVAC noise levels are predicted to be 52 dBA  $L_{eq}$ . This would comply with the City of Tracy Noise Ordinance hourly standard of 55 dBA  $L_{eq}$  for residential uses. Appendix D shows the complete noise barrier calculation inputs and results.

Assuming that both HVAC units ran continuously between the hours of 6:00 am to 10:00 pm, the day/night average ( $L_{dn}$ ) would be 52 dBA  $L_{dn}$ . This level would comply with the City's 60 dB  $L_{dn}$  noise level standard for residential uses. Therefore, no additional noise control measures would be required.

### **CONCLUSIONS**

The proposed project is predicted to generate noise levels that comply with the City of Tracy General Plan Noise Element and Noise Ordinance standards.

## Appendix A

### Acoustical Terminology

<b>Acoustics</b>	The science of sound.
<b>Ambient Noise</b>	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
<b>Attenuation</b>	The reduction of an acoustic signal.
<b>A-Weighting</b>	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
<b>Decibel or dB</b>	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
<b>CNEL</b>	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
<b>Frequency</b>	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
<b>L<sub>dn</sub></b>	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
<b>Leq</b>	Equivalent or energy-averaged sound level.
<b>L<sub>max</sub></b>	The highest root-mean-square (RMS) sound level measured over a given period of time.
<b>L<sub>(n)</sub></b>	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L <sub>50</sub> is the sound level exceeded 50% of the time during the one hour period.
<b>Loudness</b>	A subjective term for the sensation of the magnitude of sound.
<b>Noise</b>	Unwanted sound.
<b>NRC</b>	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
<b>Peak Noise</b>	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
<b>RT<sub>60</sub></b>	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
<b>Sabin</b>	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
<b>SEL</b>	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.
<b>STC</b>	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations.
<b>Threshold of Hearing</b>	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
<b>Threshold of Pain</b>	Approximately 120 dB above the threshold of hearing.
<b>Impulsive</b>	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
<b>Simple Tone</b>	Any sound which can be judged as audible as a single pitch or set of single pitches.



**Appendix B**

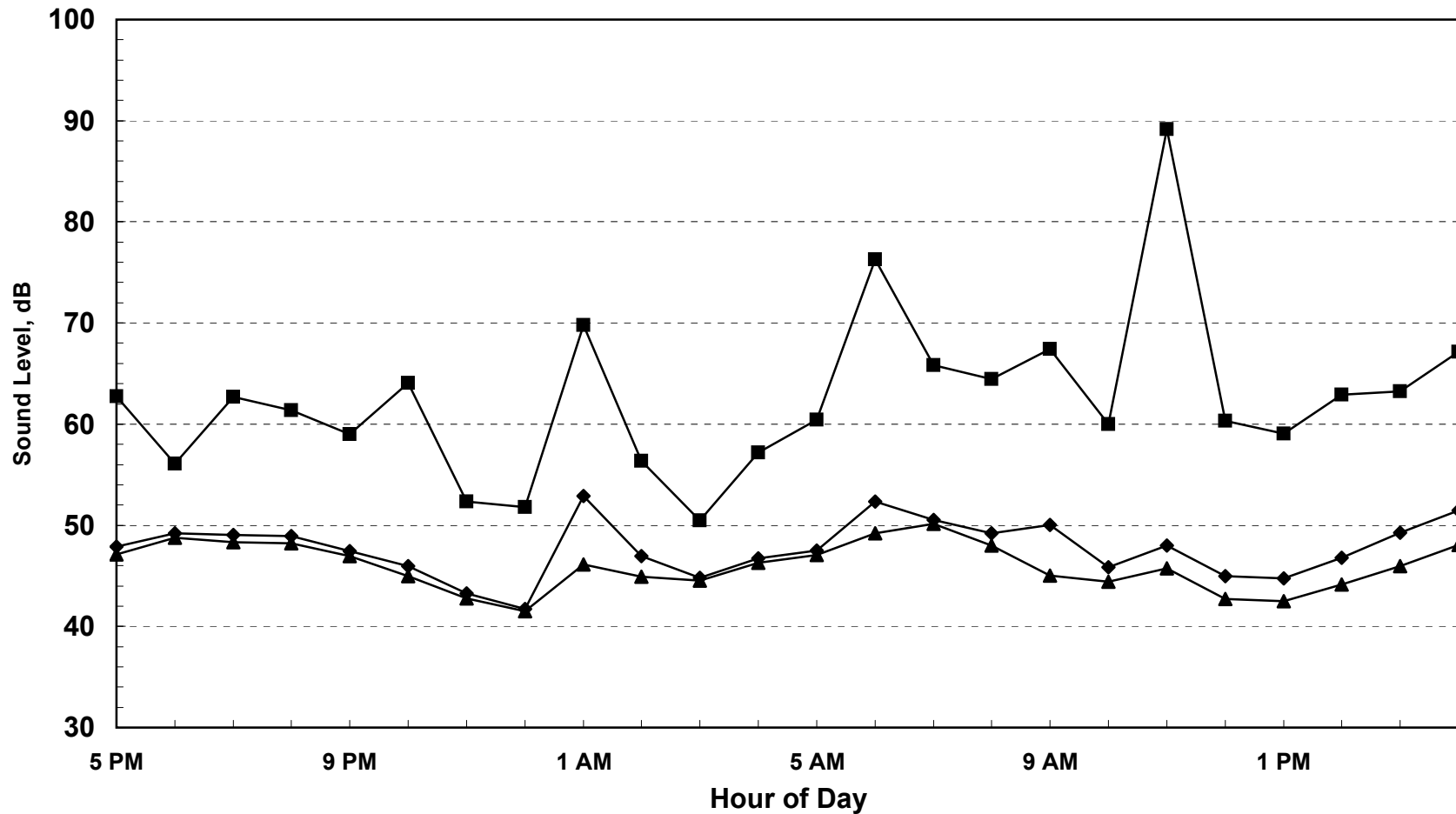
2014-223 Tracy Medical Office Building  
 24hr Continuous Noise Monitoring - Site A  
 11/3/14 - 11/4/14

Hour	Leq	Lmax	L50	L90
17:00	48	63	47	45
18:00	49	56	49	47
19:00	49	63	48	47
20:00	49	61	48	46
21:00	47	59	47	45
22:00	46	64	45	43
23:00	43	52	43	41
0:00	42	52	42	40
1:00	53	70	46	40
2:00	47	56	45	41
3:00	45	50	45	42
4:00	47	57	46	45
5:00	48	60	47	46
6:00	52	76	49	47
7:00	51	66	50	48
8:00	49	64	48	44
9:00	50	67	45	41
10:00	46	60	44	42
11:00	48	89	46	41
12:00	45	60	43	40
13:00	45	59	42	40
14:00	47	63	44	41
15:00	49	63	46	43
16:00	51	67	48	44

Statistical Summary						
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	51	45	49	53	42	48
Lmax (Maximum)	89	56	64	76	50	60
L50 (Median)	50	42	46	49	42	45
L90 (Background)	48	40	44	47	40	43

Computed Ldn, dB	55
% Daytime Energy	64%
% Nighttime Energy	36%

**Appendix B**  
2014-223 Tracy Medical Office Building  
24hr Continuous Noise Monitoring - Site A  
11/3/14 - 11/4/14



Ldn = 55 dB

◆ Leq    ■ Lmax    ▲ L50

**Appendix B**

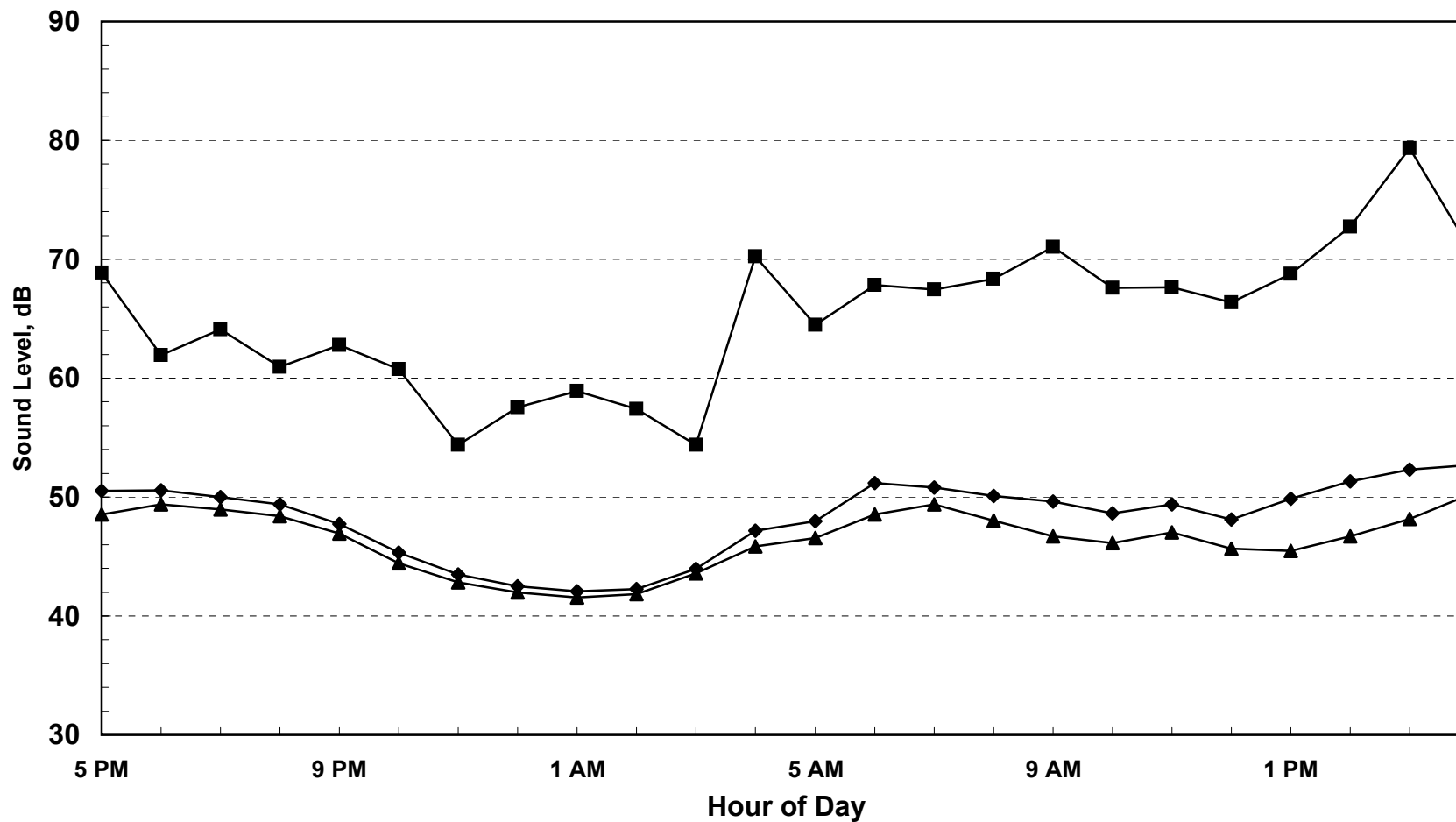
2014-223 Tracy Medical Office Building  
 24hr Continuous Noise Monitoring - Site B  
 11/3/14 - 11/4/14

Hour	Leq	Lmax	L50	L90
17:00	51	69	49	46
18:00	51	62	49	48
19:00	50	64	49	47
20:00	49	61	48	46
21:00	48	63	47	45
22:00	45	61	44	42
23:00	43	54	43	41
0:00	42	58	42	41
1:00	42	59	42	40
2:00	42	57	42	40
3:00	44	54	44	42
4:00	47	70	46	44
5:00	48	64	47	45
6:00	51	68	49	46
7:00	51	67	49	47
8:00	50	68	48	45
9:00	50	71	47	43
10:00	49	68	46	44
11:00	49	68	47	44
12:00	48	66	46	43
13:00	50	69	45	43
14:00	51	73	47	43
15:00	52	79	48	45
16:00	53	71	50	45

Statistical Summary						
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	53	48	50	51	42	46
Lmax (Maximum)	79	61	68	70	54	61
L50 (Median)	50	45	48	49	42	44
L90 (Background)	48	43	45	46	40	43

Computed Ldn, dB	54
% Daytime Energy	81%
% Nighttime Energy	19%

**Appendix B**  
 2014-223 Tracy Medical Office Building  
 24hr Continuous Noise Monitoring - Site B  
 11/3/14 - 11/4/14



Ldn = 54 dB

◆ Leq    ■ Lmax    ▲ L50

**Appendix B**

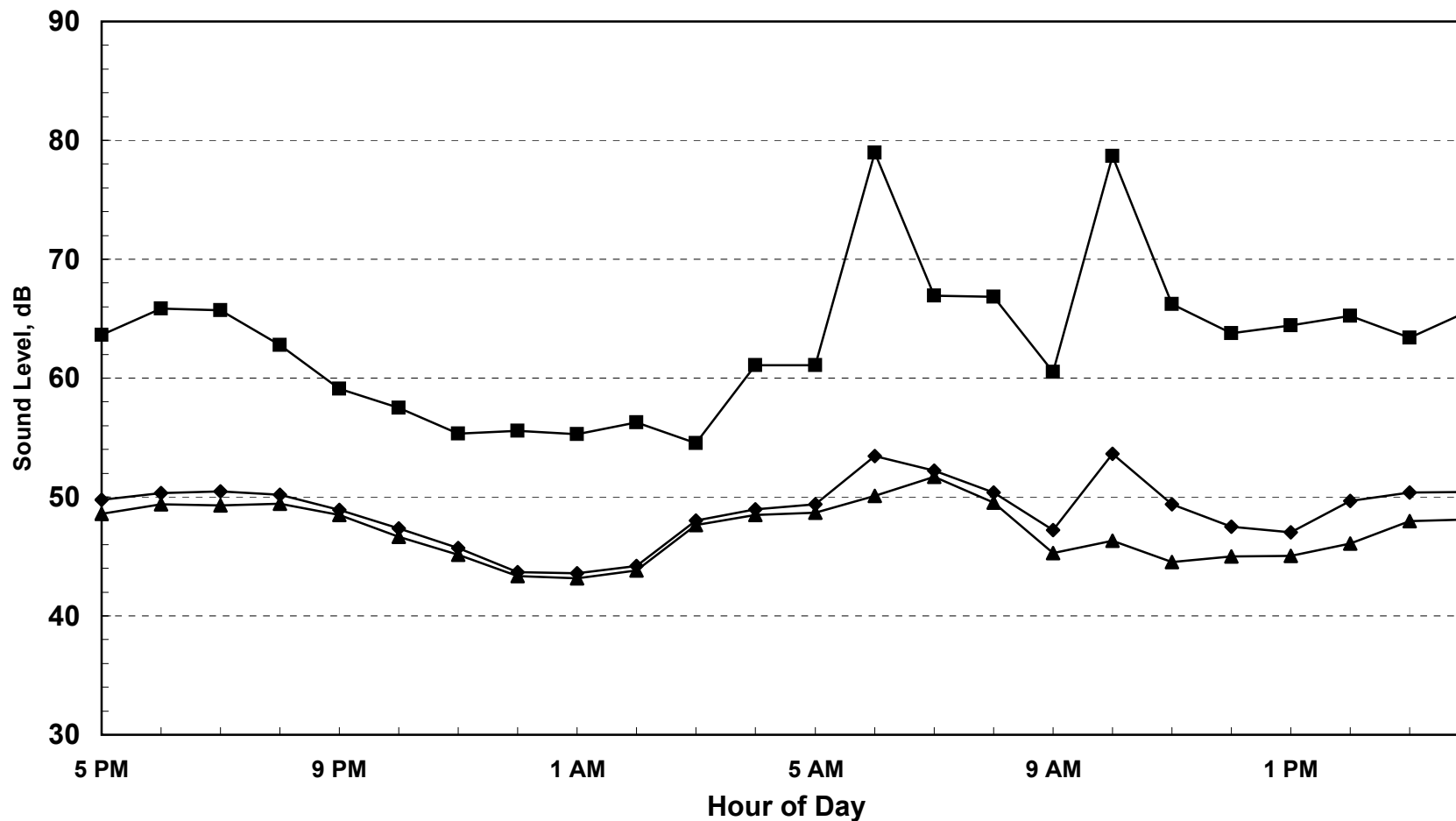
2014-223 Tracy Medical Office Building  
 24hr Continuous Noise Monitoring - Site C  
 11/3/14 - 11/4/14

Hour	Leq	Lmax	L50	L90
17:00	50	64	49	46
18:00	50	66	49	48
19:00	50	66	49	48
20:00	50	63	49	48
21:00	49	59	48	47
22:00	47	57	47	44
23:00	46	55	45	43
0:00	44	56	43	42
1:00	44	55	43	42
2:00	44	56	44	42
3:00	48	55	48	45
4:00	49	61	48	47
5:00	49	61	49	47
6:00	53	79	50	48
7:00	52	67	52	50
8:00	50	67	50	46
9:00	47	61	45	43
10:00	54	79	46	44
11:00	49	66	45	42
12:00	47	64	45	42
13:00	47	64	45	42
14:00	50	65	46	43
15:00	50	63	48	44
16:00	50	66	48	45

	Statistical Summary					
	Daytime (7 a.m. - 10 p.m.)			Nighttime (10 p.m. - 7 a.m.)		
	High	Low	Average	High	Low	Average
Leq (Average)	54	47	50	53	44	48
Lmax (Maximum)	79	59	65	79	55	60
L50 (Median)	52	45	48	50	43	46
L90 (Background)	50	42	45	48	42	45

Computed Ldn, dB	55
% Daytime Energy	72%
% Nighttime Energy	28%

**Appendix B**  
2014-223 Tracy Medical Office Building  
24hr Continuous Noise Monitoring - Site C  
11/3/14 - 11/4/14



Ldn = 55 dB

◆ Leq    ■ Lmax    ▲ L50



Appendix C-1

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Data Input Sheet**

Project #: 2014-223 Tracy Sutter Medical Office Building

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	W. Lowell	West of Bessie	2,480	83		17	1	0.5	25	50	0
2	W. Lowell	Bessie to Parker	1,810	83		17	1	0.5	25	50	0
3	W. Lowell	East of Parker	1,450	83		17	1	0.5	25	50	0
4	W. Beverly	West of Bessie	380	83		17	1	0.5	25	50	0
5	W. Beverly	Bessie to Parker	360	83		17	1	0.5	25	50	0
6	W. Beverly	East of Parker	510	83		17	1	0.5	25	50	0
7	W. Eaton	West of S. Tracy	1,330	83		17	1	0.5	25	50	0
8	W. Eaton	S. Tracy to Bessie	2,930	83		17	1	0.5	25	50	0
9	W. Eaton	Bessie to Parker	2,630	83		17	1	0.5	25	50	0
10	W. Eaton	East of Parker	3,580	83		17	1	0.5	25	50	0
11	W 11th Street	West of Bessie	18,060	83		17	1	0.5	30	50	0
12	W 11th Street	Bessie to Parker	16,210	83		17	1	0.5	30	50	0
13	W 11th Street	East of Parker	15,530	83		17	1	0.5	30	50	0
14	Tracy	North of W. Eaton	17,110	83		17	1	0.5	25	50	0
15	Tracy	South of W. Eaton	16,800	83		17	1	0.5	25	50	0
16	Bessie	N. of W. Lowell	2,200	83		17	1	0.5	25	50	0
17	Bessie	W. Lowell to W. Beverly	2,060	83		17	1	0.5	25	50	0
18	Bessie	W. Beverly to W. Eaton	2,150	83		17	1	0.5	25	50	0
19	Bessie	W. Eaton to W 11th	1,640	83		17	1	0.5	25	50	0
20	Parker	N. of W. Lowell	3,430	83		17	1	0.5	25	50	0
21	Parker	W. Lowell to W. Beverly	3,520	83		17	1	0.5	25	50	0
22	Parker	W. Beverly to W. Eaton	3,470	83		17	1	0.5	25	50	0
23	Parker	W. Eaton to W 11th	3,460	83		17	1	0.5	25	50	0

**Appendix C-2**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Predicted Levels**

Project #: 2014-223 Tracy Sutter Medical Office Building  
 Description: Existing Traffic  
 Ldn/CNEL: Ldn  
 Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	W. Lowell	West of Bessie	53.0	44.7	49.3	54.9
2	W. Lowell	Bessie to Parker	51.6	43.3	47.9	53.6
3	W. Lowell	East of Parker	50.6	42.3	46.9	52.6
4	W. Beverly	West of Bessie	44.8	36.5	41.1	46.8
5	W. Beverly	Bessie to Parker	44.6	36.3	40.9	46.6
6	W. Beverly	East of Parker	46.1	37.8	42.4	48.1
7	W. Eaton	West of S. Tracy	50.3	42.0	46.6	52.2
8	W. Eaton	S. Tracy to Bessie	53.7	45.4	50.0	55.7
9	W. Eaton	Bessie to Parker	53.2	44.9	49.5	55.2
10	W. Eaton	East of Parker	54.6	46.3	50.9	56.5
11	W 11th Street	West of Bessie	63.9	54.5	58.6	65.4
12	W 11th Street	Bessie to Parker	63.4	54.0	58.2	64.9
13	W 11th Street	East of Parker	63.2	53.9	58.0	64.7
14	Tracy	North of W. Eaton	61.4	53.0	57.7	63.3
15	Tracy	South of W. Eaton	61.3	53.0	57.6	63.3
16	Bessie	N. of W. Lowell	52.5	44.1	48.8	54.4
17	Bessie	W. Lowell to W. Beverly	52.2	43.9	48.5	54.1
18	Bessie	W. Beverly to W. Eaton	52.4	44.0	48.7	54.3
19	Bessie	W. Eaton to W 11th	51.2	42.9	47.5	53.2
20	Parker	N. of W. Lowell	54.4	46.1	50.7	56.4
21	Parker	W. Lowell to W. Beverly	54.5	46.2	50.8	56.5
22	Parker	W. Beverly to W. Eaton	54.4	46.1	50.7	56.4
23	Parker	W. Eaton to W 11th	54.4	46.1	50.7	56.4



**Appendix C-3**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Noise Contour Output**

Project #: 2014-223 Tracy Sutter Medical Office Building

Description: Existing Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	----- Distances to Traffic Noise Contours -----				
			75	70	65	60	55
1	W. Lowell	West of Bessie	2	5	11	23	50
2	W. Lowell	Bessie to Parker	2	4	9	19	40
3	W. Lowell	East of Parker	2	3	7	16	35
4	W. Beverly	West of Bessie	1	1	3	7	14
5	W. Beverly	Bessie to Parker	1	1	3	6	14
6	W. Beverly	East of Parker	1	2	4	8	17
7	W. Eaton	West of S. Tracy	2	3	7	15	33
8	W. Eaton	S. Tracy to Bessie	3	6	12	26	55
9	W. Eaton	Bessie to Parker	2	5	11	24	52
10	W. Eaton	East of Parker	3	6	14	29	63
11	W 11th Street	West of Bessie	11	25	53	114	246
12	W 11th Street	Bessie to Parker	11	23	49	106	229
13	W 11th Street	East of Parker	10	22	48	103	223
14	Tracy	North of W. Eaton	8	18	39	83	180
15	Tracy	South of W. Eaton	8	18	38	82	178
16	Bessie	N. of W. Lowell	2	5	10	21	46
17	Bessie	W. Lowell to W. Beverly	2	4	9	20	44
18	Bessie	W. Beverly to W. Eaton	2	5	10	21	45
19	Bessie	W. Eaton to W 11th	2	4	8	17	38
20	Parker	N. of W. Lowell	3	6	13	29	62
21	Parker	W. Lowell to W. Beverly	3	6	13	29	63
22	Parker	W. Beverly to W. Eaton	3	6	13	29	62
23	Parker	W. Eaton to W 11th	3	6	13	29	62

Appendix C-4

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Data Input Sheet**

Project #: 2014-223 Tracy Sutter Medical Office Building

Description: Existing Plus Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	W. Lowell	West of Bessie	2,850	83		17	1	0.5	25	50	0
2	W. Lowell	Bessie to Parker	1,840	83		17	1	0.5	25	50	0
3	W. Lowell	East of Parker	1,500	83		17	1	0.5	25	50	0
4	W. Beverly	West of Bessie	410	83		17	1	0.5	25	50	0
5	W. Beverly	Bessie to Parker	410	83		17	1	0.5	25	50	0
6	W. Beverly	East of Parker	510	83		17	1	0.5	25	50	0
7	W. Eaton	West of S. Tracy	1,330	83		17	1	0.5	25	50	0
8	W. Eaton	S. Tracy to Bessie	3,470	83		17	1	0.5	25	50	0
9	W. Eaton	Bessie to Parker	2,960	83		17	1	0.5	25	50	0
10	W. Eaton	East of Parker	3,620	83		17	1	0.5	25	50	0
11	W 11th Street	West of Bessie	18,200	83		17	1	0.5	30	50	0
12	W 11th Street	Bessie to Parker	16,250	83		17	1	0.5	30	50	0
13	W 11th Street	East of Parker	15,760	83		17	1	0.5	30	50	0
14	Tracy	North of W. Eaton	17,110	83		17	1	0.5	25	50	0
15	Tracy	South of W. Eaton	17,530	83		17	1	0.5	25	50	0
16	Bessie	N. of W. Lowell	2,270	83		17	1	0.5	25	50	0
17	Bessie	W. Lowell to W. Beverly	2,520	83		17	1	0.5	25	50	0
18	Bessie	W. Beverly to W. Eaton	2,870	83		17	1	0.5	25	50	0
19	Bessie	W. Eaton to W 11th	1,810	83		17	1	0.5	25	50	0
20	Parker	N. of W. Lowell	3,500	83		17	1	0.5	25	50	0
21	Parker	W. Lowell to W. Beverly	3,620	83		17	1	0.5	25	50	0
22	Parker	W. Beverly to W. Eaton	3,560	83		17	1	0.5	25	50	0
23	Parker	W. Eaton to W 11th	3,700	83		17	1	0.5	25	50	0

**Appendix C-5**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Predicted Levels**

Project #: 2014-223 Tracy Sutter Medical Office Building  
 Description: Existing Plus Traffic  
 Ldn/CNEL: Ldn  
 Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Autos	Medium Trucks	Heavy Trucks	Total
1	W. Lowell	West of Bessie	53.6	45.3	49.9	55.6
2	W. Lowell	Bessie to Parker	51.7	43.4	48.0	53.7
3	W. Lowell	East of Parker	50.8	42.5	47.1	52.8
4	W. Beverly	West of Bessie	45.2	36.8	41.5	47.1
5	W. Beverly	Bessie to Parker	45.2	36.8	41.5	47.1
6	W. Beverly	East of Parker	46.1	37.8	42.4	48.1
7	W. Eaton	West of S. Tracy	50.3	42.0	46.6	52.2
8	W. Eaton	S. Tracy to Bessie	54.4	46.1	50.7	56.4
9	W. Eaton	Bessie to Parker	53.7	45.4	50.0	55.7
10	W. Eaton	East of Parker	54.6	46.3	50.9	56.6
11	W 11th Street	West of Bessie	63.9	54.6	58.7	65.4
12	W 11th Street	Bessie to Parker	63.4	54.1	58.2	64.9
13	W 11th Street	East of Parker	63.3	53.9	58.0	64.8
14	Tracy	North of W. Eaton	61.4	53.0	57.7	63.3
15	Tracy	South of W. Eaton	61.5	53.2	57.8	63.4
16	Bessie	N. of W. Lowell	52.6	44.3	48.9	54.6
17	Bessie	W. Lowell to W. Beverly	53.0	44.7	49.4	55.0
18	Bessie	W. Beverly to W. Eaton	53.6	45.3	49.9	55.6
19	Bessie	W. Eaton to W 11th	51.6	43.3	47.9	53.6
20	Parker	N. of W. Lowell	54.5	46.2	50.8	56.4
21	Parker	W. Lowell to W. Beverly	54.6	46.3	50.9	56.6
22	Parker	W. Beverly to W. Eaton	54.5	46.2	50.9	56.5
23	Parker	W. Eaton to W 11th	54.7	46.4	51.0	56.7

**Appendix C-6**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Noise Contour Output**

Project #: 2014-223 Tracy Sutter Medical Office Building

Description: Existing Plus Traffic

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name	Segment Description	----- Distances to Traffic Noise Contours -----				
			75	70	65	60	55
1	W. Lowell	West of Bessie	3	5	12	25	54
2	W. Lowell	Bessie to Parker	2	4	9	19	41
3	W. Lowell	East of Parker	2	4	8	16	35
4	W. Beverly	West of Bessie	1	1	3	7	15
5	W. Beverly	Bessie to Parker	1	1	3	7	15
6	W. Beverly	East of Parker	1	2	4	8	17
7	W. Eaton	West of S. Tracy	2	3	7	15	33
8	W. Eaton	S. Tracy to Bessie	3	6	13	29	62
9	W. Eaton	Bessie to Parker	3	6	12	26	56
10	W. Eaton	East of Parker	3	6	14	30	64
11	W 11th Street	West of Bessie	11	25	53	115	247
12	W 11th Street	Bessie to Parker	11	23	49	107	229
13	W 11th Street	East of Parker	10	22	48	104	225
14	Tracy	North of W. Eaton	8	18	39	83	180
15	Tracy	South of W. Eaton	8	18	39	85	183
16	Bessie	N. of W. Lowell	2	5	10	22	47
17	Bessie	W. Lowell to W. Beverly	2	5	11	23	50
18	Bessie	W. Beverly to W. Eaton	3	5	12	25	55
19	Bessie	W. Eaton to W 11th	2	4	9	19	40
20	Parker	N. of W. Lowell	3	6	13	29	62
21	Parker	W. Lowell to W. Beverly	3	6	14	30	64
22	Parker	W. Beverly to W. Eaton	3	6	14	29	63
23	Parker	W. Eaton to W 11th	3	6	14	30	65

## Appendix D

### Barrier Insertion Loss Calculation

#### Project Information:

Job Number: 2014-223  
Project Name: Sutter Medical Office Building - Tracy  
Location(s): Residential to East

#### Noise Level Data:

Source Description: Primary Parking Lot  
Source Noise Level, dBA: 54  
Source Frequency (Hz): 500  
Source Height (ft): 4

#### Site Geometry:

Receiver Description: Nearest Backyard  
Source to Barrier Distance ( $C_1$ ): 50  
Barrier to Receiver Distance ( $C_2$ ): 15  
  
Pad/Ground Elevation at Receiver: 0  
Receiver Elevation<sup>1</sup>: 5  
Base of Barrier Elevation: 0  
Starting Barrier Height 8

#### Barrier Effectiveness:

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
8	8	-8	47	Yes
9	9	-9	45	Yes
10	10	-10	44	Yes
11	11	-11	43	Yes
12	12	-12	42	Yes
13	13	-13	42	Yes
14	14	-14	41	Yes
15	15	-14	40	Yes
16	16	-15	40	Yes
17	17	-15	39	Yes
18	18	-16	39	Yes

**Notes:** 1. Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)

## Appendix D

### Barrier Insertion Loss Calculation

#### Project Information:

Job Number: 2014-223  
Project Name: Sutter Medical Office Building - Tracy  
Location(s): Residential

#### Noise Level Data:

Source Description: Staff Parking Lot  
Source Noise Level, dBA: 51  
Source Frequency (Hz): 500  
Source Height (ft): 4

#### Site Geometry:

Receiver Description: Nearest Backyard  
Source to Barrier Distance ( $C_1$ ): 50  
Barrier to Receiver Distance ( $C_2$ ): 15  
  
Pad/Ground Elevation at Receiver: 0  
Receiver Elevation<sup>1</sup>: 5  
Base of Barrier Elevation: 0  
Starting Barrier Height 8

#### Barrier Effectiveness:

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
8	8	-8	44	Yes
9	9	-9	42	Yes
10	10	-10	41	Yes
11	11	-11	40	Yes
12	12	-12	39	Yes
13	13	-13	39	Yes
14	14	-14	38	Yes
15	15	-14	37	Yes
16	16	-15	37	Yes
17	17	-15	36	Yes
18	18	-16	36	Yes

**Notes:** 1. Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)

## Appendix D

### Barrier Insertion Loss Calculation

#### Project Information:

Job Number: 2014-223  
Project Name: Sutter Medical Office Building - Tracy  
Location(s): Residential to East

#### Noise Level Data:

Source Description: M.O.B. Rooftop HVAC  
Source Noise Level, dBA: 67  
Source Frequency (Hz): 500  
Source Height (ft): 36

#### Site Geometry:

Receiver Description: Nearest Backyard  
Source to Barrier Distance ( $C_1$ ): 50  
Barrier to Receiver Distance ( $C_2$ ): 50  
  
Pad/Ground Elevation at Receiver: 0  
Receiver Elevation<sup>1</sup>: 5  
Base of Barrier Elevation: 30  
Starting Barrier Height 9

#### Barrier Effectiveness:

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
39	9	-15	52	Yes
40	10	-15	52	Yes
41	11	-16	51	Yes
42	12	-16	51	Yes
43	13	-16	51	Yes
44	14	-17	51	Yes
45	15	-17	50	Yes
46	16	-17	50	Yes
47	17	-17	50	Yes
48	18	-17	50	Yes
49	19	-17	50	Yes

**Notes:** 1. Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)