Appendix L
Traffic Impact Study - UPDATE
and
Supplemental Memorandum

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Report

Warner Avenue Widening from Main Street to Grand Avenue Project
Traffic Impact Study - UPDATE

City of Santa Ana, California

Prepared for

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1.0 Introduction

1.1 STUDY PURPOSE

This report summarizes the analysis of traffic conditions forecast to result from the Warner Avenue Widening from Main Street to Grand Avenue Project. Warner Avenue is designated as a major arterial in the City of Santa Ana (City) General Plan Circulation Element and in the Orange County Transportation Authority's Master Plan of Arterial Highways (MPAH). The proposed improvements would widen the roadway from four to six lanes between Main Street and Grand Avenue, and improve this section of the roadway to be consistent with its City and MPAH designation. The widening of Warner Avenue also includes striping for Class II bicycle lanes, raised landscaped median, and improved sidewalks and parkways. The proposed project is consistent with the City's interest in implementing complete streets.

The traffic analysis examines existing (2012) and forecast future traffic with the proposed widening project and identifies potential traffic improvements that may be necessary to provide acceptable operations through the horizon year 2035.

1.2 REPORT ORGANIZATION

This report consists of ten sections.

1.0 Introduction
2.0 Analysis Methodology
3.0 Existing Conditions
4.0 Project Description
5.0 Future Traffic Conditions
6.0 Traffic Impact Analysis
7.0 Roadway Segment Analysis
8.0 Orange County Congestion Management Program Analysis
9.0 Impacts
10.0 Project Construction Traffic Conditions
11.0 Findings and Recommendations
Appendix

This section, Section 1, describes the study area and the purpose for the project. Section 2 includes the methodology utilized in the analysis and the referenced standards. The study area roadways, intersection geometry, turning movement volumes, and level of service are presented in Section 3. The physical changes to arterial and intersection geometry proposed as part of the project are illustrated in Section 4. The future year 2020 and 2035 traffic conditions are summarized in Section 5. The traffic impact analysis for the existing year 2012, opening year 2020, and horizon year 2035 is summarized in Section 6. Section 7 provides a summary of the roadway segment analysis. The Orange County Congestion Management Program Analysis is provided in Section 8. Section 9 presents the significant traffic impacts associated with the proposed project and proposed mitigation measures to address these impacts. The project construction traffic conditions are discussed in Section 10 and the findings of this study and recommended improvements are summarized in Section 11.

1.3 STUDY AREA AND PROJECT BACKGROUND

The proposed project is located in the City of Santa Ana, west of State Route 55 (SR-55), and close to the boundary limits of Santa Ana with the Cities of Irvine and Tustin. The study area is bounded by Edinger Avenue to the north, Dyer Road to the south, Flower Street to the west and the SR-55 freeway on the east. The project location is identified in Figure 1-1, and the study area is shown in Figure 1-2.

FIGURE 1-1 Project Location

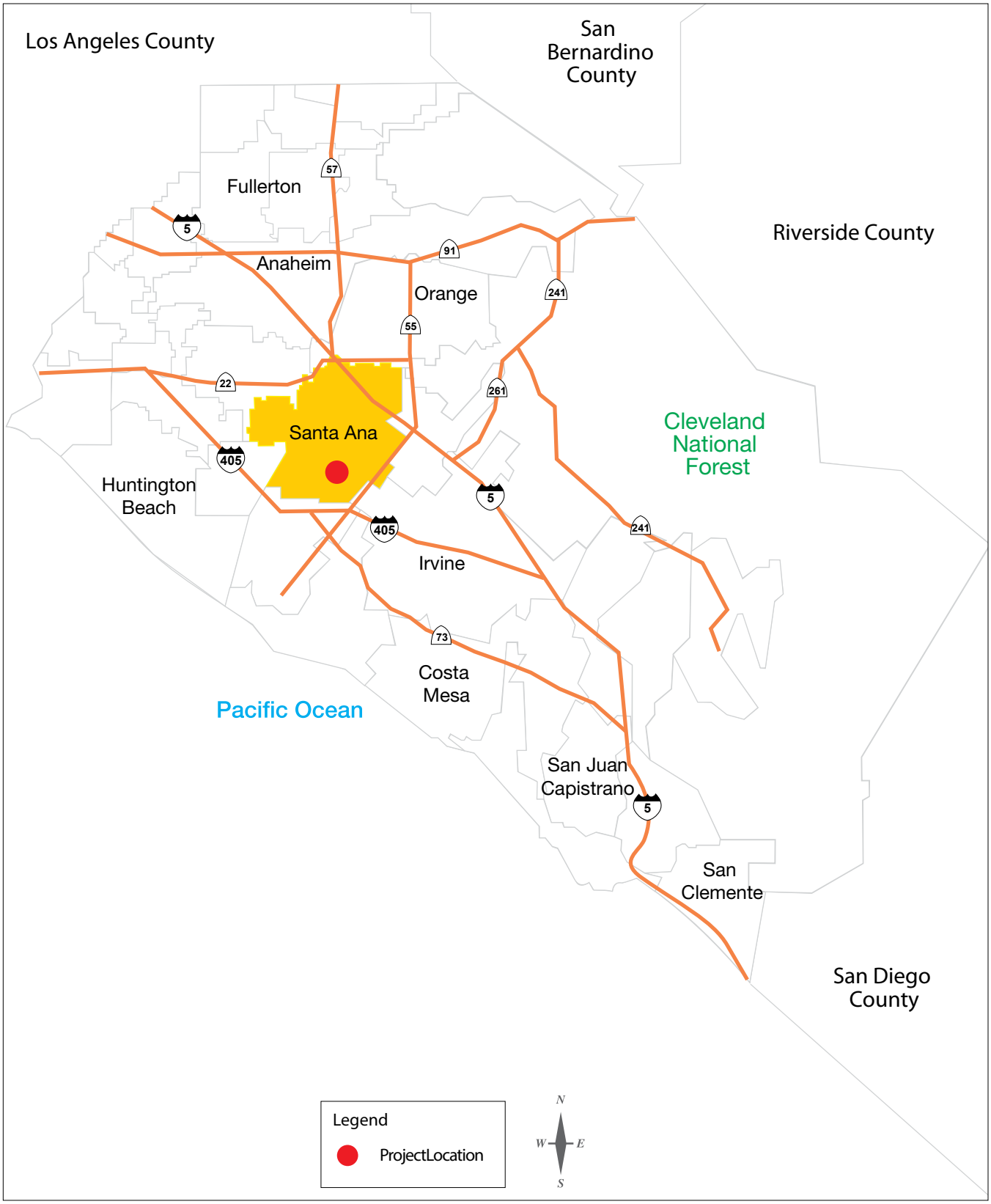
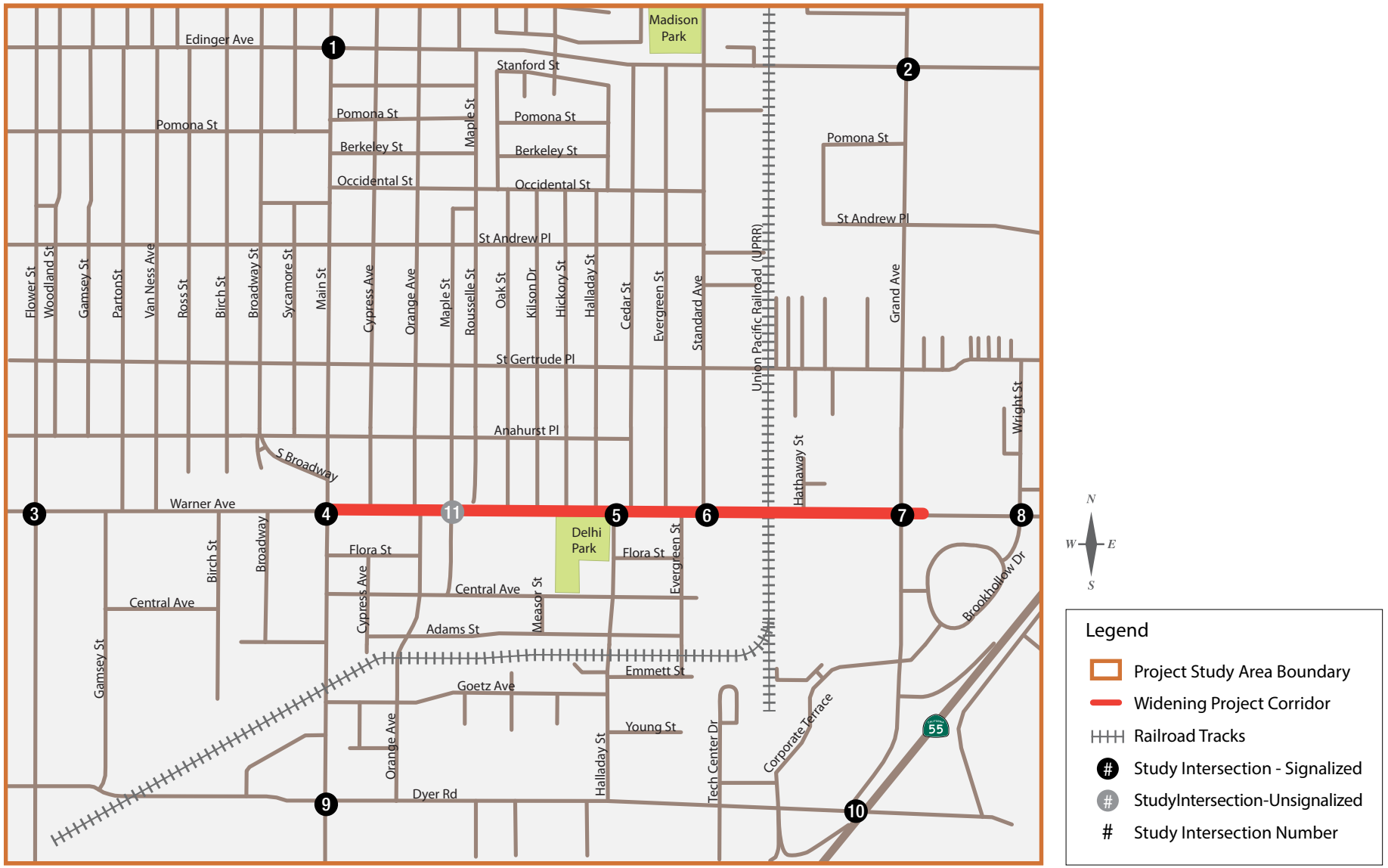


FIGURE 1-2 Project Study Area



2.0 Analysis Methodology

The traffic analysis presented in this report was prepared in accordance with the City of Santa Ana requirements and the Orange County Congestion Management Program (CMP) guidelines. The intersection analysis methodology and performance criteria used in this analysis conform to the California Environmental Quality Act (CEQA) guidelines for a traffic impact analysis.

The traffic analysis conducted for the Warner Avenue Widening from Main Street to Grand Avenue Project includes an assessment of traffic conditions for the roadway and eleven existing intersections for the following analysis timeframes:

- Existing Condition Without Project: Year 2012
- Existing Condition With Project: Year 2012
- Opening Year Without Project: Year 2020
- Opening Year With Project: Year 2020
- Horizon Year Without Project: Year 2035
- Horizon Year With Project: Year 2035

2.1 ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS AND CRITERIA

Arterial roadway segment performance is based on the capacity of the facility (as determined by the functional classification, roadway geometrics, and number of through lanes) and the Average Daily Traffic (ADT) volumes. The City of Santa Ana General Plan Circulation Element evaluates roadway segment performance in terms of Level of Service (LOS), where the thresholds for each LOS grade are based on daily volume-to-capacity (V/C) ratios. The maximum average daily volumes for arterial roadways by street classification and lane configuration and the corresponding Level of Service are summarized in Table 2-1. Descriptions of operation and the range of volume-to-capacity ratios for each LOS grade are presented in Table 2-2.

Table 2-1 Maximum Average Daily Traffic and LOS for Arterial Roads

Street Classification	Lane Configuration	A	B	C	D	E	F
Principal Arterial	8 Lanes Divided	45,000	52,500	60,000	67,500	75,000	>75,000
Major Arterial	6 Lanes Divided	33,900	39,400	45,000	50,600	56,300	>56,300
Primary Arterial	4 Lanes Divided	22,500	26,300	30,000	33,800	37,500	>37,500
Secondary Arterial	4 Lanes Undivided	15,000	17,500	20,000	22,500	25,000	>25,000
Commuter Street	2 Lanes Undivided	7,500	8,800	10,000	11,300	12,500	>12,500

Source: City of Santa Ana, General Plan – Circulation Element, 1998

2.2 INTERSECTION LEVEL OF SERVICE ANALYSIS AND CRITERIA

Traffic conditions at signalized intersections are evaluated using the Intersection Capacity Utilization (ICU) methodology consistent with the City of Santa Ana traffic analysis procedures. The ICU methodology is based on intersection volume-to-capacity (V/C) ratios. The V/C value for each movement is the observed or forecast volume divided by the saturation flow volume. The intersection ICU value is the sum of the V/C values for the critical movement on each leg, where critical movements are the pairs of conflicting movements with the highest combined V/C values. ICU is usually expressed as a decimal

value (e.g. 0.74), where 1.00 represents the saturated condition where the volume of traffic flow is equal to the capacity. This study uses maximum saturation volumes of 1,600 vehicles per hour per lane (VPHPL) for turn lanes and 1,700 VPHPL for through lanes for the study intersection analysis.

The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of roadways and intersections involves the assignment of grades from "A" to "F," with LOS "A" representing the highest level operating conditions and LOS "F" representing extremely congested and restricted operations. Each letter grade corresponds to a range of ICU values, as described in Table 2-2.

Table 2-2 Level of Service Descriptions

Level of Service	Range of V/C Ratios	Definition
A	0.00 – 0.60	Free Flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.
B	0.61 – 0.70	Stable flow. The presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream with LOS A. The general level of comfort and convenience provided is somewhat less than that of LOS A, because the presence of others in the traffic stream begins to affect individual behavior.
C	0.71 – 0.80	Stable flow. This LOS marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.
D	0.81 – 0.90	High density, but stable flow. Speed and freedom to maneuver are severely restricted, and the drive or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
E	0.91 – 1.00	Operating conditions at or near the capacity level. All speeds are reduced to a slow but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and drivers or pedestrian frustration is generally high. Operations at this level are usually unstable because small increases in flow or minor variations within the stream will cause a breakdown.
F	> 1.00	Forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse that point. Queues form up behind such locations as arrival flow exceeds discharge flow.

Source: City of Santa Ana, General Plan – Circulation Element, 1998

If there is a need to analyze unsignalized intersections within the study area, the applicable methodology is contained in the Highway Capacity Manual Chapter 17, under the two-way stop-controlled section.

This methodology uses delay as a measure of level of service instead of volume-to capacity ratios. The average control delay ranges and respective level of service are listed in Table 2-3.

Table 2-3 Level of Service Descriptions

Level of Service	Average Control Delay (s/veh)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Source: Highway Capacity Manual – Chapter 17, 2000

The intersection Level of Service analysis for this report was performed using TRAFFIX software. TRAFFIX is a network-based interactive computer program that enables calculation of levels of service at signalized and unsignalized intersections for multiple locations and scenarios. TRAFFIX also calculates signal timing (green times and cycle lengths) and maximum queue lengths to assist in evaluating signalized intersections.

2.3 MINIMUM ACCEPTABLE LEVEL OF SERVICE

The minimum acceptable level of service established by the Circulation Element of the City of Santa Ana General Plan is defined as LOS D for major intersections in the City, except in major development areas where LOS E is considered to be the minimum acceptable LOS. Intersections are considered significant if an unacceptable peak hour level of service is projected; or if the project increases traffic demand at the study intersection by 1% of capacity (0.010) if the intersection already operates at an unacceptable level.

The Congestion Management Plan establishes LOS E as the minimum level of operation for CMP roadways (freeways and Smart Streets). A significant impact is caused by a 1% increase in V/C (0.010) if the CMP intersection already operates at LOS F. Within the project study area, Edinger Avenue is designated as a CMP roadway.

2.4 TRAFFIC COUNT DATA

Intersection turning movement counts taken in April of 2012 were provided by the City of Santa Ana for the project study intersections. The intersection turning movement counts were taken on Tuesday, April 17 through Thursday, April 19 during the morning peak period (7:00 AM to 9:00 AM) and the afternoon peak period (4:00 PM to 6:00 PM). The AM and PM peak analyses are based on the hour of highest total intersection volume during the morning and afternoon periods. No mid-day or weekend analyses are required for this study.

Updated average daily traffic volumes were also taken on Warner Avenue. One 24-hour traffic count with vehicle classification was conducted on the segment of Warner Avenue east of Main Street, and one 24-hour classified count was made on Warner Avenue west of Grand Avenue. The daily segment and peak hour intersection count data sheets are included in the Appendix to this report.

2.5 TRAVEL DEMAND FORECASTING

The opening year 2020 and horizon year 2035 volumes were derived based on existing peak hour count data and forecast link volumes obtained from the Orange County Transportation Analysis Model (OCTAM 3.4). OCTAM 3.4 is the accepted regional model for forecasting travel demand in Orange

County. Growth factors for each intersection approach and departure were interpolated from OCTAM link plots for 2010 and 2035. These growth factors were then applied to existing counts to forecast future turning movement volumes. OCTAM 3.4 was recently updated by OCTA and this traffic analysis update utilizes this new version of the model.

3.0 Existing Conditions

The project study area includes arterial roadways and signalized intersections in the vicinity of the project corridor. Descriptions of geometrical features and intersection level of service analysis results for the Year 2012 are included in this section.

3.1 EXISTING ROADWAY NETWORK

Selected arterials that are located in the vicinity of the project corridor are described in this section. Items of note include existing geometry, pedestrian and bicycle facilities, and adjacent land uses.

Warner Avenue is a four-lane undivided arterial that runs east and west through the study area. There are currently no striped bicycle lanes and on-street parking is not allowed. The posted speed limit is 40-45 miles per hour, but this limit is reduced to 25 miles per hour between Orange Avenue and Standard Avenue when children are present. Warner Avenue is classified as a Major Arterial in the Orange County Master Plan of Arterial Highways. There are three OCTA bus lines that service Warner Avenue in the project study area. Route 72 runs all day through the whole study area with average peak frequency of two buses per hour. Route 463 has service only in the AM and PM peak periods, and services the study area with three buses per hour. Route 55 runs all day and services Warner Avenue between Halladay Street and Grand Avenue, with a frequency of three buses per hour in the peak hours.

Edinger Avenue is a major east-west arterial that is divided by a raised landscaped median and defines the northern boundary of the study area. West of Main Street, Edinger Avenue is a four-lane divided arterial. Between Main Street and Evergreen Street, there are two eastbound lanes and three westbound lanes on Edinger. East of Evergreen Street, Edinger is a six-lane divided arterial with three lanes in each direction. There are currently no striped bicycle lanes in either direction. On-street parking is permitted in the eastbound direction from Main Street to Maple Street and from Cedar Street to Evergreen Street. The posted speed limit is 40 miles per hour.

Dyer Road is an east-west major arterial, and constitutes the southern boundary of the study area. West of Main Street, Dyer Road has four lanes. From Main Street to Orange Avenue, there are three eastbound lanes and two westbound lanes plus a right turn lane. East of Orange Avenue, Dyer Road is a six-lane divided arterial with three lanes in each direction. There are no bicycle lanes and on-street parking is prohibited. The posted speed limit is 40 miles per hour.

Flower Street runs north and south and is the west boundary of the project study area. South of Warner Avenue, Flower Street is a four-lane undivided secondary arterial with a center two-way left-turn lane. There are no striped bicycle lanes and on-street parking is prohibited. North of Warner Avenue, Flower Street is a two-lane undivided collector street. On-street parking is allowed on selected blocks on the west side of the street, and there are no striped bicycle lanes. The prima facie speed limit is 25 miles per hour.

Main Street is an undivided secondary arterial that runs north and south through the study area. North of Warner Avenue, Main Street has four lanes with a center two-way left-turn lane. From Warner Avenue to Saint Gertrude Place, the speed limit is 25 miles per hour when children are present. North of Saint Gertrude Place, the speed limit on Main Street is 35 miles per hour. South of Warner Avenue, the speed limit is 40 miles per hour. Between Warner Avenue and Dyer Road, there are two northbound lanes and three southbound lanes on Main Street with a center two-way left-turn lane. Parking is permitted on the east side of the street between Goetz Avenue and Dyer Road, and prohibited on Main Street through the rest of the study area. South of Dyer Road, Main Street widens to a six-lane facility with a center two-way left-turn lane.

Halladay Street is a local two-lane undivided street that travels north and south between Warner Avenue and Dyer Road. On-street parking is permitted along Halladay Street, but there are no bicycle lanes. The prima facie speed limit is 25 miles per hour.

Standard Avenue is a four-lane undivided street that runs north and south through part of the study area, and forms a T-intersection with Warner Avenue. Parking is permitted along the residential blocks on the west side of Standard Avenue.

Grand Avenue runs north and south though the study area. From the southbound SR-55 freeway off-ramp to the northern study area boundary, Grand Avenue is a six-lane major arterial with a center two-way left-turn lane. Approximately 900 feet north of Warner Avenue, Grand Avenue narrows to two lanes in the southbound direction, and the third southbound lane is restored about 300 feet north of Warner Avenue. South of the SR-55 freeway off-ramp, Grand Avenue has two northbound and three southbound lanes divided by a landscaped median. Parking is not allowed along Grand Avenue. The posted speed limit is 45 miles per hour.

Wright Street is a two-lane undivided local street that runs north and south between Saint Gertrude Place and Warner Avenue. This street is located east of the study limits. South of Warner Avenue, the street is named Brookhollow Drive and serves an office park campus.

Brookhollow Drive is a two-lane undivided access road that provides access to the Brookhollow Office Park from Warner Avenue and Grand Avenue. This street is located at the eastern end of the study area.

3.2 STUDY INTERSECTION GEOMETRY AND PEAK HOUR VOLUMES

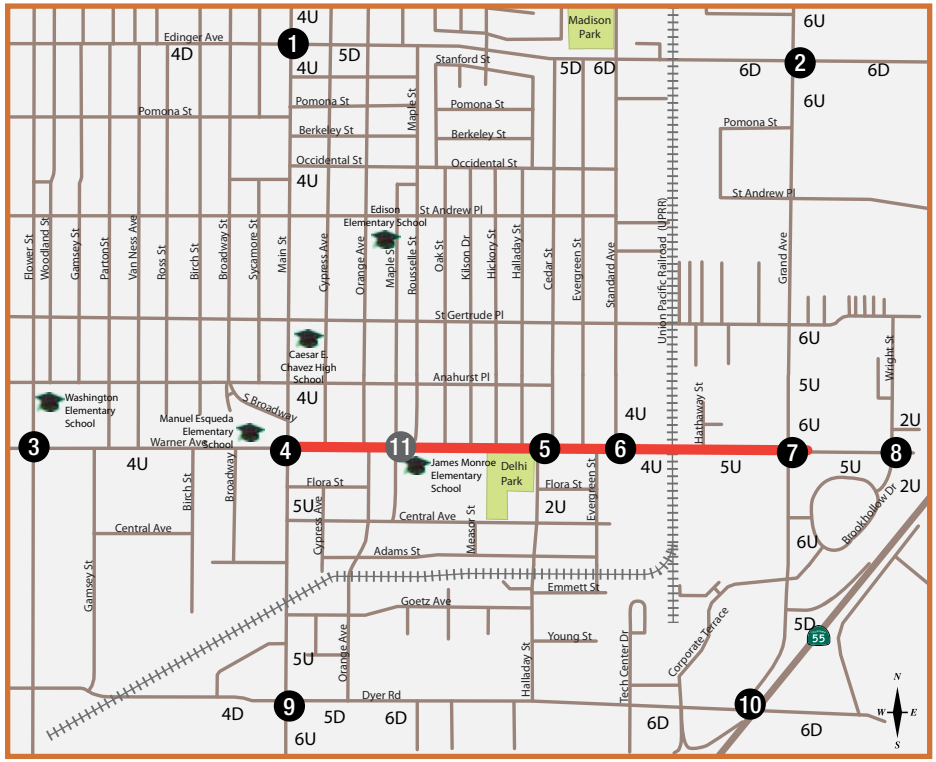
Eleven existing intersections were selected in consultation with the City of Santa Ana for analysis based on proximity to the Warner Avenue Widening Project. The existing study intersections are:

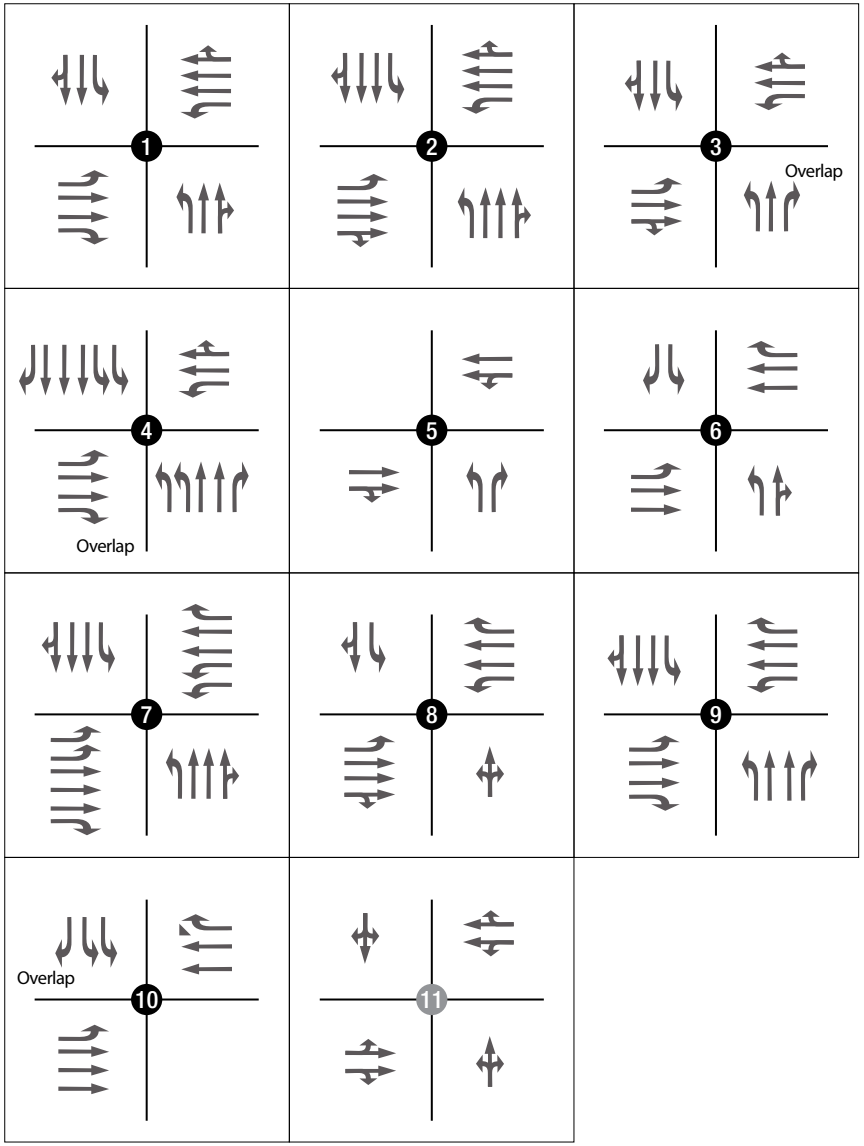
1. Main Street and Edinger Avenue
2. Grand Avenue and Edinger Avenue
3. Flower Street and Warner Avenue
4. Main Street and Warner Avenue
5. Halladay Street and Warner Avenue
6. Standard Avenue and Warner Avenue
7. Grand Avenue and Warner Avenue
8. Wright Street and Warner Avenue
9. Main Street and Dyer Road
10. Grand Avenue and Dyer Road
11. Maple Street and Warner Avenue

There is a Class I pedestrian and bicycle path that runs in the north-south direction through the study area, and crosses Warner Avenue about 150 feet east of Maple Street. The bicycle path intersection at Warner Avenue is signalized, but remains green unless activated by a pedestrian push button. A fire station signal is located on Warner Avenue about 700 feet west of Grand Avenue. Similar to the pedestrian/bicyclist activated signal, it remains green for traffic on Warner Avenue unless activated by an emergency vehicle. The bicycle path and fire station signals do not operate on regular cycles and are not included in the intersection analysis.

Existing roadway and study intersection geometry are shown in Figure 3-1. Year 2012 AM peak hour turning movement volumes are shown in Figure 3-2, and the PM peak hour volumes are shown in Figure 3-3.

FIGURE 3-1 Existing Roadway and Intersection Geometry

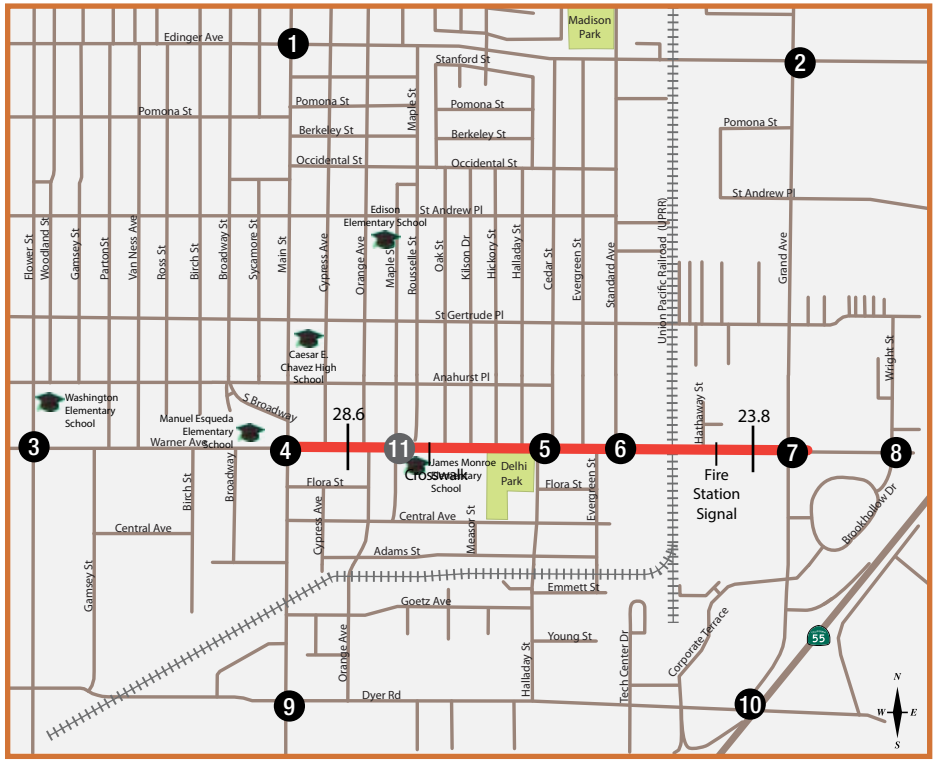




Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- # Study Intersection - Signalized
- # Study Intersection - Unsignalized
- # Study Intersection Number
- #D Number of Divided Lanes
- #U Number of Undivided Lanes
- Lane Geometry
- Free Right Turn Lane

FIGURE 3-2 Existing (Year 2012) Without Project Volumes – AM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

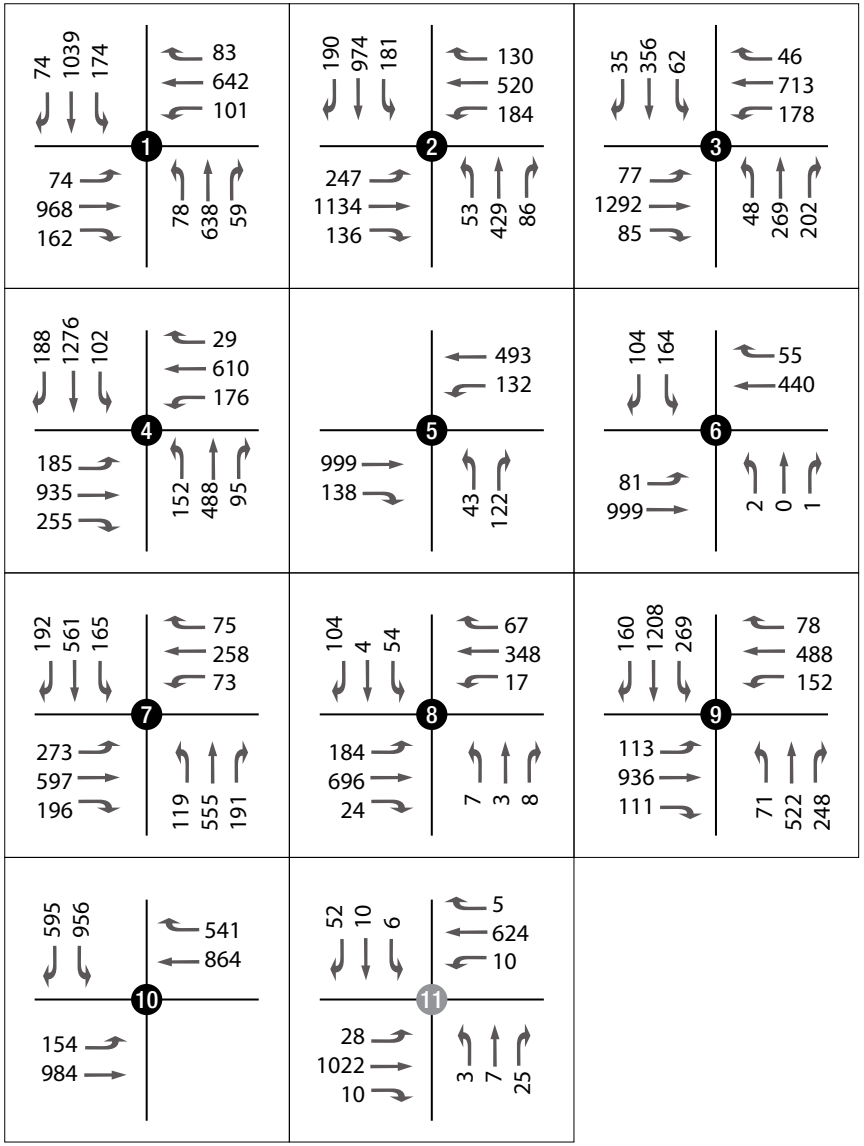
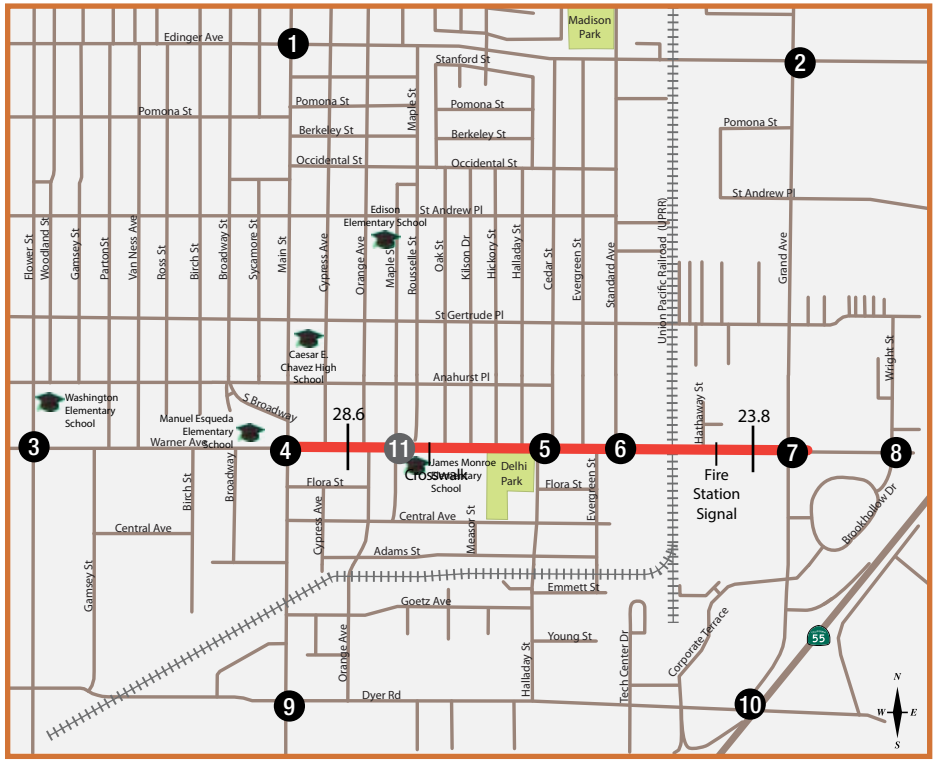
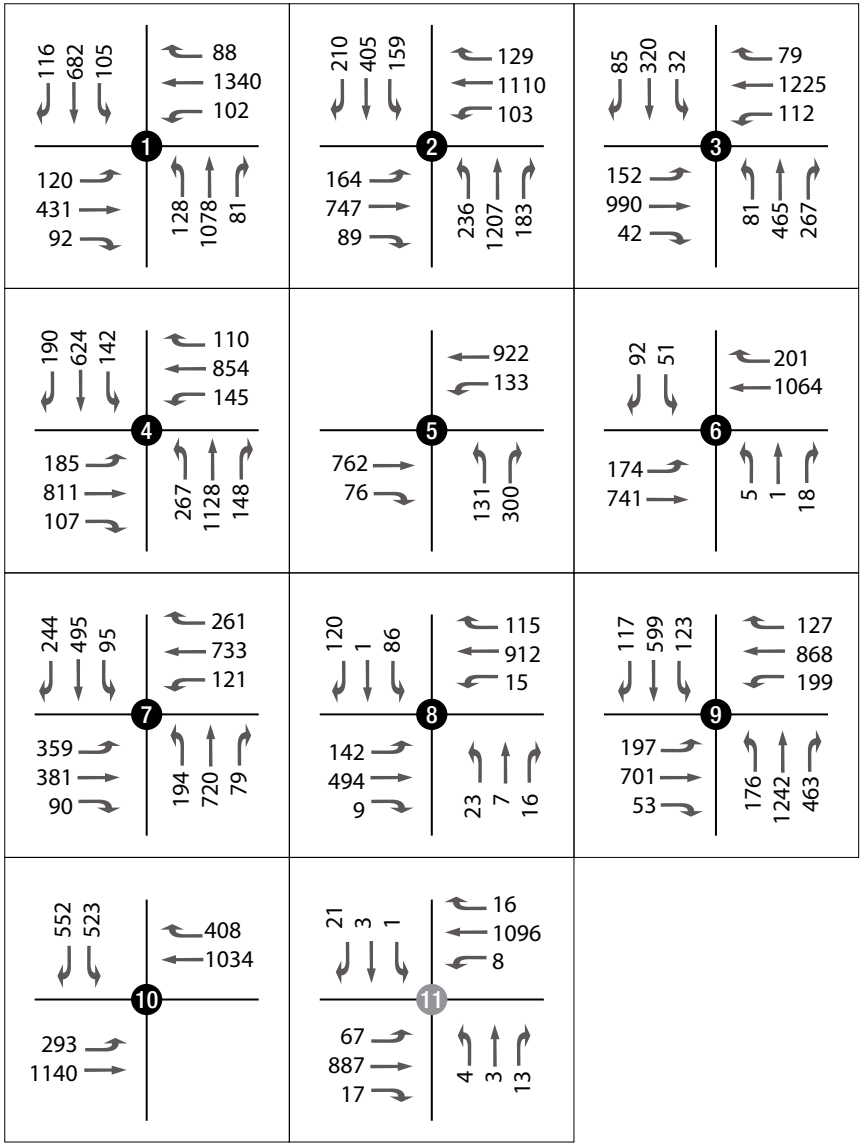


FIGURE 3-3 Existing (Year 2012) Without Project Volumes – PM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)



3.3 EXISTING YEAR 2012 TRAFFIC CONDITIONS

3.3.1 Arterial Level of Service

Warner Avenue currently serves about 23,000 to 28,000 vehicles per day through the project area. Table 3-1 includes the 24-hour count locations, volumes, and corresponding arterial level of service. Warner Avenue is currently operating at a deficient level of service or at capacity for a four-lane undivided arterial as defined by the City of Santa Ana Circulation Element. Conditions on this roadway are expected to further deteriorate in the future as traffic volumes continue to increase.

Table 3-1 Existing (Year 2012) LOS on Warner Avenue

Road Segment	Section Limits	Lane Configuration	Daily Volume	LOS
Warner Ave	Between Main St & Halladay St	4 lanes undivided	28,640	F
Warner Ave	Between Standard Ave & Grand Ave	4 lanes undivided	23,814	D

3.3.2 Intersection Level of Service

A summary of the AM and PM peak hour level of service analysis results for the year 2012 existing condition are included in Table 3-2.

Table 3-2: Existing (Year 2012) Intersection Level of Service (LOS) Results

Intersection		AM Peak Hour		PM Peak Hour		Deficient
		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS	
1	Main St & Edinger Ave	0.786	C	0.842	D	
2	Grand Ave & Edinger Ave	0.697	B	0.791	C	
3	Flower St & Warner Ave	0.780	C	0.838	D	
4	Main St & Warner Ave	0.726	C	0.836	D	
5	Halladay St & Warner Ave	0.564	A	0.582	A	
6	Standard Ave & Warner Ave	0.433	A	0.519	A	
7	Grand Ave & Warner Ave	0.465	A	0.648	B	
8	Wright St & Warner Ave	0.339	A	0.497	A	
9	Main St & Dyer Rd	0.735	C	0.862	D	
10	Grand Ave & Dyer Rd	0.685	B	0.686	B	
11	Maple St & Warner Ave	1.5 s [(1)]	A	1.1 s	A	

Note 2: The HCM method reports the average delay at the unsignalized intersection. Some approaches may experience higher delays

All eleven study intersections currently operate at an acceptable level of service during both peak hour time periods. However, four intersections in the study area operate near the threshold for acceptable level of service during the PM peak hour:

- Main Street and Edinger Avenue (#1)
- Flower Street and Warner Avenue (#3)
- Main Street and Warner Avenue (#4)

- Main Street and Dyer Road (#9)

An increase in traffic due to ambient traffic growth or local projects could cause these intersections to operate in the unacceptable range in the future based on City of Santa Ana standards.

The intersection of Maple Street and Warner Avenue is estimated to operate at level of service A. Due to the intersection configuration – two-way stop control in the north-south direction, the volumes that approach the intersection in these directions experience higher delays. In the AM peak hour, the northbound approach has an average delay of 25.9 seconds (LOS D). In the PM peak hour, the northbound approach has an average delay of 39.3 seconds (LOS E) and the southbound approach has an average delay of 27.3 seconds (LOS D).

4.0 Project Description

4.1 PROJECT DESCRIPTION

Warner Avenue is designated as a Major Arterial in the Orange County Master Plan of Arterial Highways (MPAH). The MPAH is the county-wide blueprint for maintaining mobility in Orange County. The major arterial designation is defined as a six-lane divided roadway. The Warner Avenue Widening from Main Street to Grand Avenue Project proposes to improve the one mile segment of Warner Avenue between Main Street and Grand Avenue from a four-lane undivided arterial to a six-lane divided arterial that would include a raised landscaped median and Class II bike lanes. These changes would bring Warner Avenue into compliance with the MPAH and are expected to improve mobility and safety. The modifications to study intersection geometry are shown in Figure 4-1.

The project would include the following changes to existing traffic lane geometry:

Flower Street & Warner Avenue (#3)

The intersection of Flower Street and Warner Avenue would be improved to provide a dedicated westbound right turn lane, resulting in one left turn lane, two through lanes, and one right turn lane in the westbound direction.

Main Street & Warner Avenue (#4)

The intersection of Main Street and Warner Avenue would be improved to provide dual eastbound and westbound left turn lanes. The east leg of the intersection would be widened to provide three westbound approach lanes and three eastbound departure lanes. In the existing condition, there are three westbound departure lanes on the west leg of the intersection, so no additional enhancements would be required for this segment.

Halladay Street & Warner Avenue (#5)

In addition to widening this intersection to provide six through lanes on Warner Avenue, a westbound left turn pocket would be provided to access Halladay Street.

Standard Avenue & Warner Avenue (#6)

In the existing condition, there is a driveway on the south side of Warner Avenue that lines up with Standard Avenue and provides egress movements only from Cherry Aerospace. As part of the project, the Cherry Aerospace driveway would be reconfigured to provide both access and egress, resulting in one left turn lane, one through lane and one right turn lane in the northbound direction. The existing southbound left turn lane would serve both through and left turn movements. Warner Avenue would be widened to six through lanes, and a new westbound left turn pocket into the driveway would be provided.

Grand Avenue and Warner Avenue (#7)

As part of the project, one additional through lane will be provided in the westbound direction on Warner Avenue. This would result in two left turn lanes, three through lanes, and one right turn lane in the westbound direction.

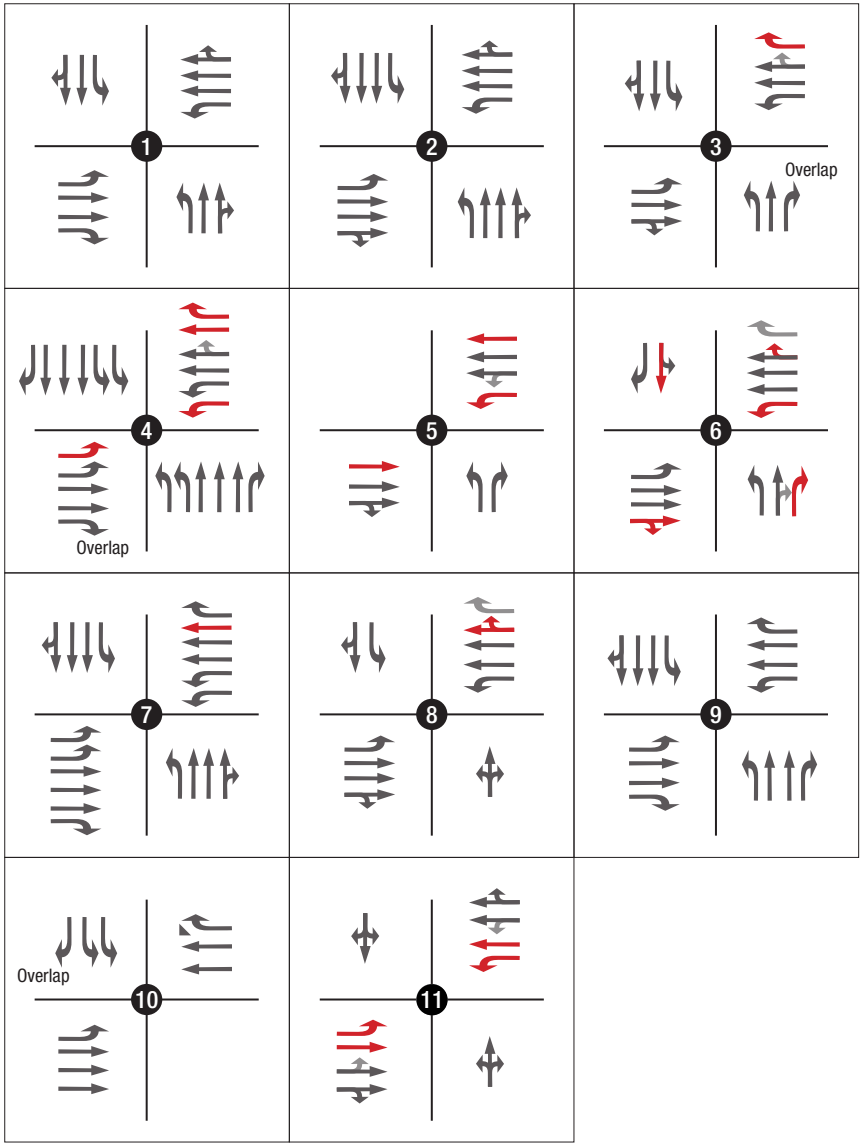
Maple Street & Warner Avenue (#11)

In the existing condition, Maple Street and Warner Avenue is an unsignalized intersection. In the with project condition, the intersection will be signalized and the existing Class I bikeway crossing at Rouselle Streetwould be re-routed to this location. Left turn lanes from Warner Avenue to Maple Street would be provided in both directions.

Unsignalized Intersections

A raised landscaped median would be installed along Warner Avenue between Main Street and Grand Avenue as part of the project, with median breaks provided exclusively at signalized intersections. Unsignalized intersections where left turn movements are currently permitted would be restricted to right-turn-in and right-turn-out movements only. This includes the Warner Avenue intersections with Cypress Avenue, Orange Avenue, Oak Street, Kilson Drive, Hickory Street, Halladay Street north of Warner Avenue, Cedar Street, Evergreen Street, and all other access driveways within the corridor.

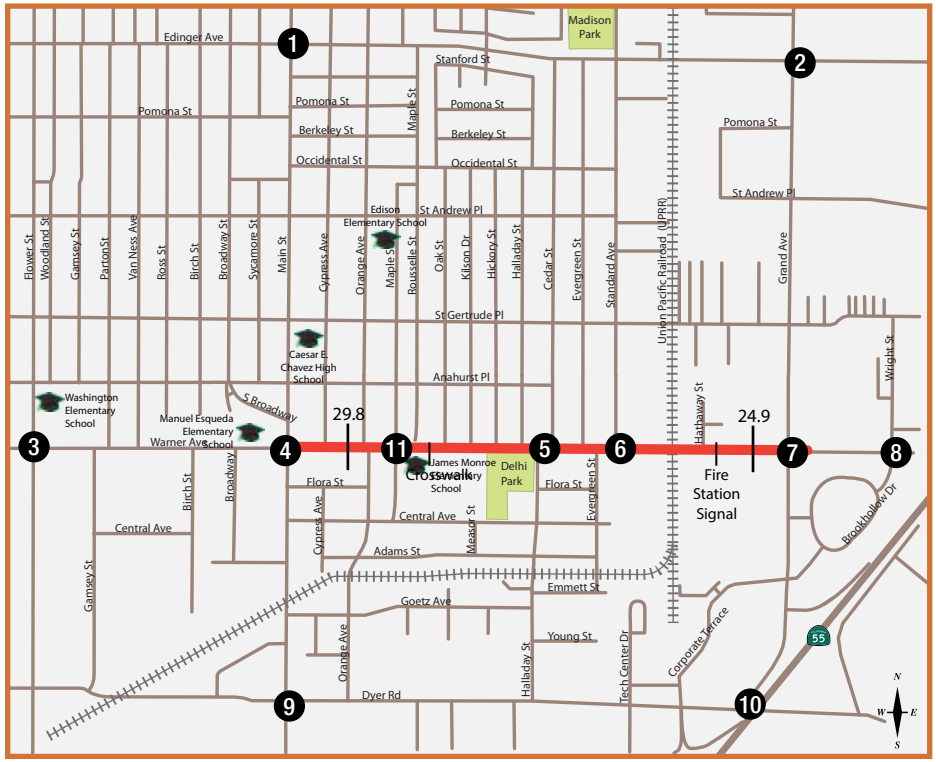
FIGURE 4-1 Roadway and Intersection Geometry With Project



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- #D Number of Divided Lanes
- #U Number of Undivided Lanes
- Lane Geometry
- Free Right Turn Lane
- Project Changes to Geometry (Lane Removed/Replaced)
- Project Changes to Geometry (Additional Lane)

FIGURE 4-2 Existing (Year 2012) With Project Volumes – AM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

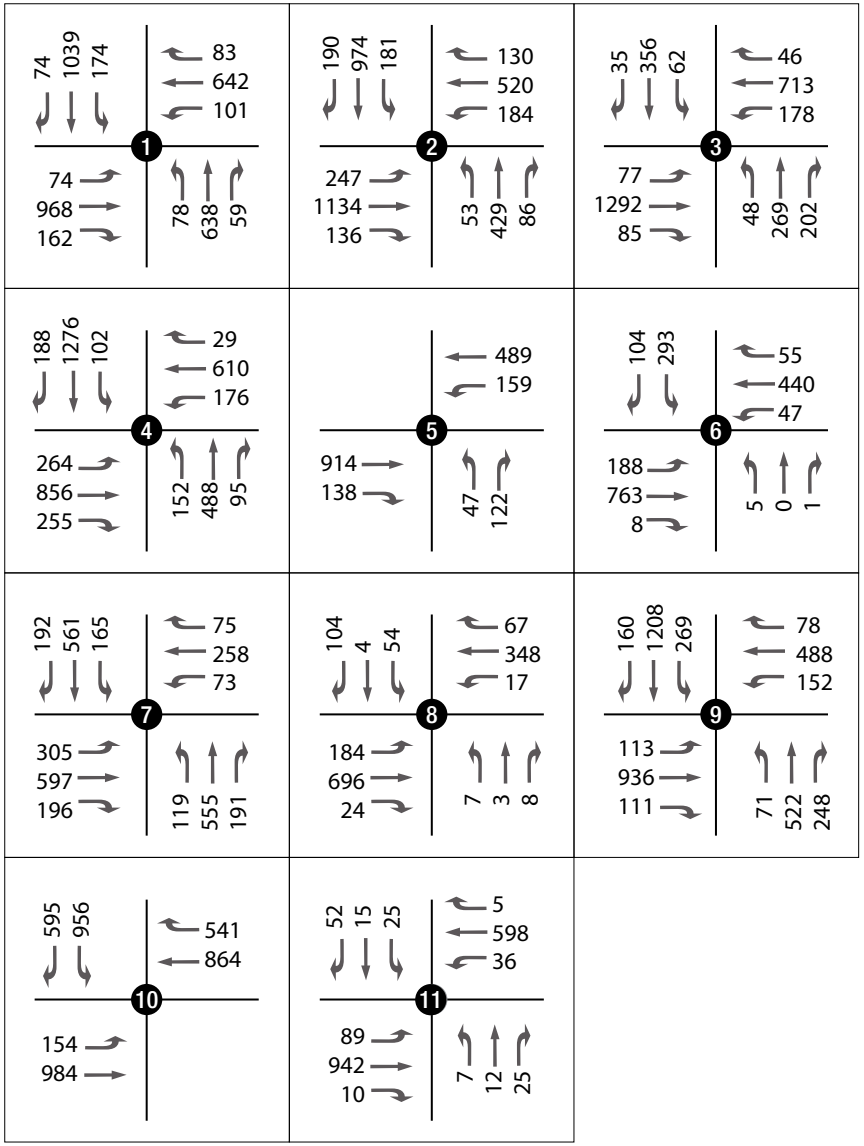
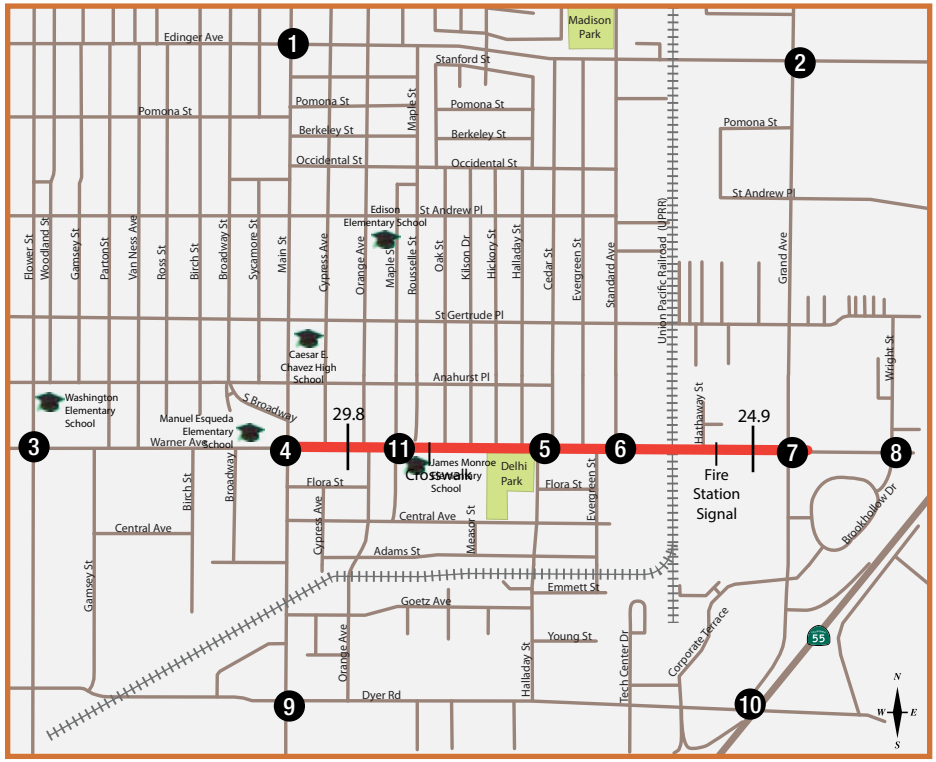
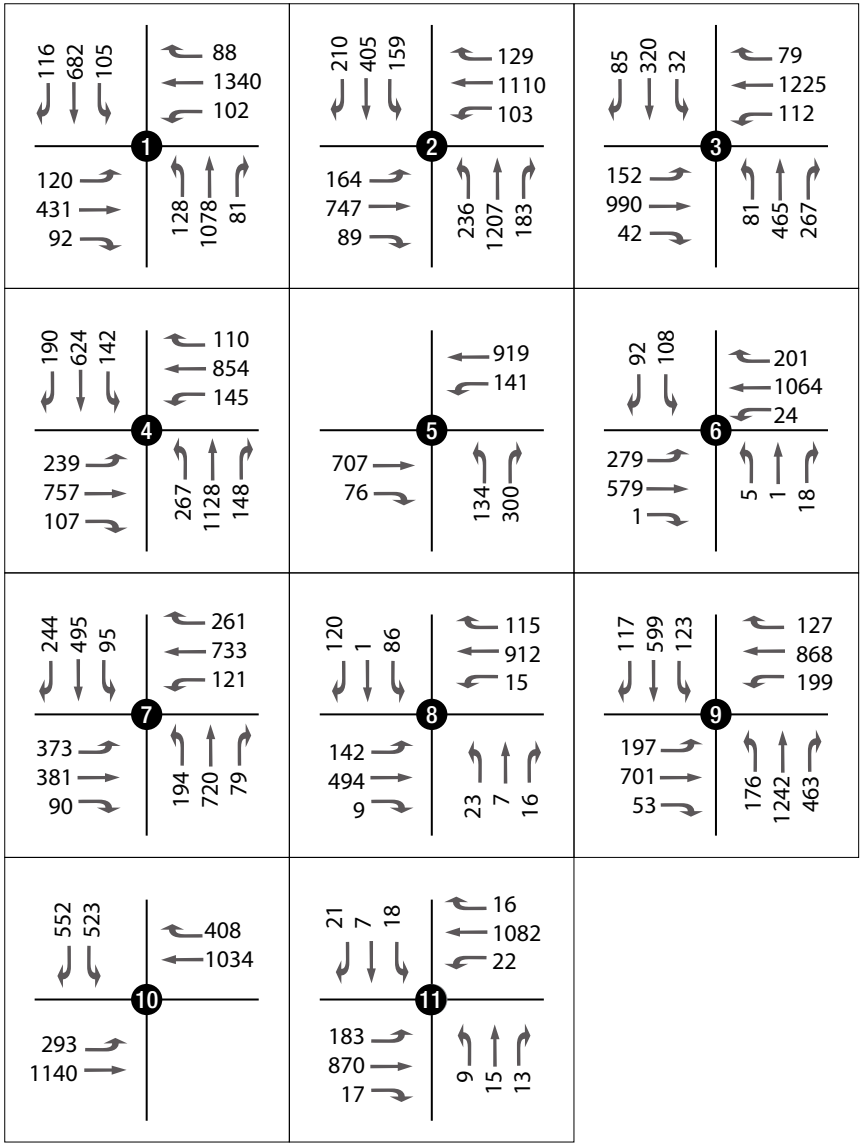


FIGURE 4-3 Existing (Year 2012) With Project Volumes – PM Peak Hour





Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

5.0 Future Traffic Conditions

The opening year 2020 and horizon year 2035 volumes were derived based on existing peak hour count data and forecast link volumes obtained from the Orange County Transportation Analysis Model (OCTAM 3.4). OCTAM 3.4 is the accepted regional model for forecasting travel demand for Orange County. Growth factors for each intersection approach and departure were interpolated from OCTAM 3.4 link plots for 2010 and 2035. These growth factors were then applied to existing counts to forecast future turning movement volumes at each of the study intersections.

5.1 PROJECT OPENING YEAR 2020 TRAFFIC CONDITIONS

The City of Santa Ana has identified the Year 2020 as the anticipated opening year for the proposed improvements on Warner.

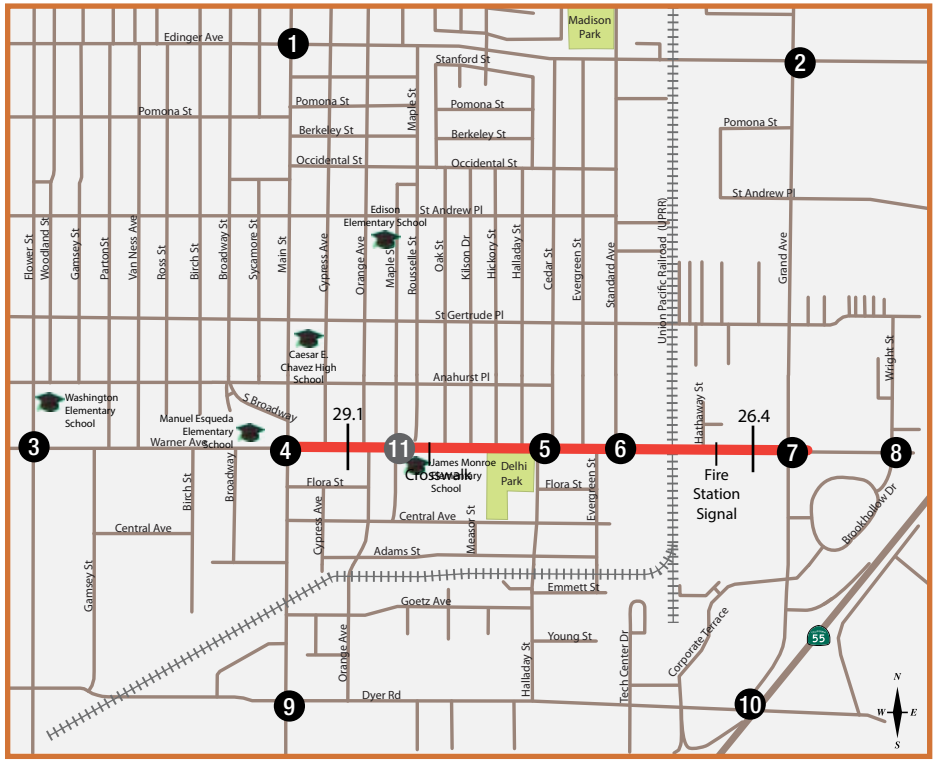
5.1.1 Opening Year 2020 Traffic Conditions – Without Project

The analysis of the WIthout Project traffic conditions establishes the baseline traffic conditions for the project opening year, and provides a point of comparison for the identification of potential impacts resulting from the With Project condition. No changes to intersection or roadway geometry within the study area are assumed as part of the opening year Without Project scenario. This scenario will serve as a base for comparison and establish the impacts of the proposed widening project. The year 2020 volumes without the project during the AM peak hour are shown in Figure 5-1, and the PM peak hour volumes are shown in Figure 5-2.

5.1.2 Opening Year 2020 Traffic Conditions – With Project

The With Project traffic conditions incorporate the Warner Avenue widening and associated lane geometry improvements shown in Figure 4-1. The widening of Warner Avenue from four lanes to six lanes is expected to result in changes to traffic patterns through the study area. Separate OCTAM 3.4 forecasts were produced for the With Project condition in order to understand traffic changes resulting from the proposed roadway improvements. Traffic volumes were further refined to reflect the proposed removal of left turns at unsignalized cross streets due to the new raised median. In this case, turning movement volumes were redistributed to adjacent signalized intersections as appropriate. The year 2020 AM and PM peak hour intersection turning movement volumes with the project are shown in Figures 5-3 and 5-4.

FIGURE 5-1 Opening (Year 2020) Without Project Volumes – AM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

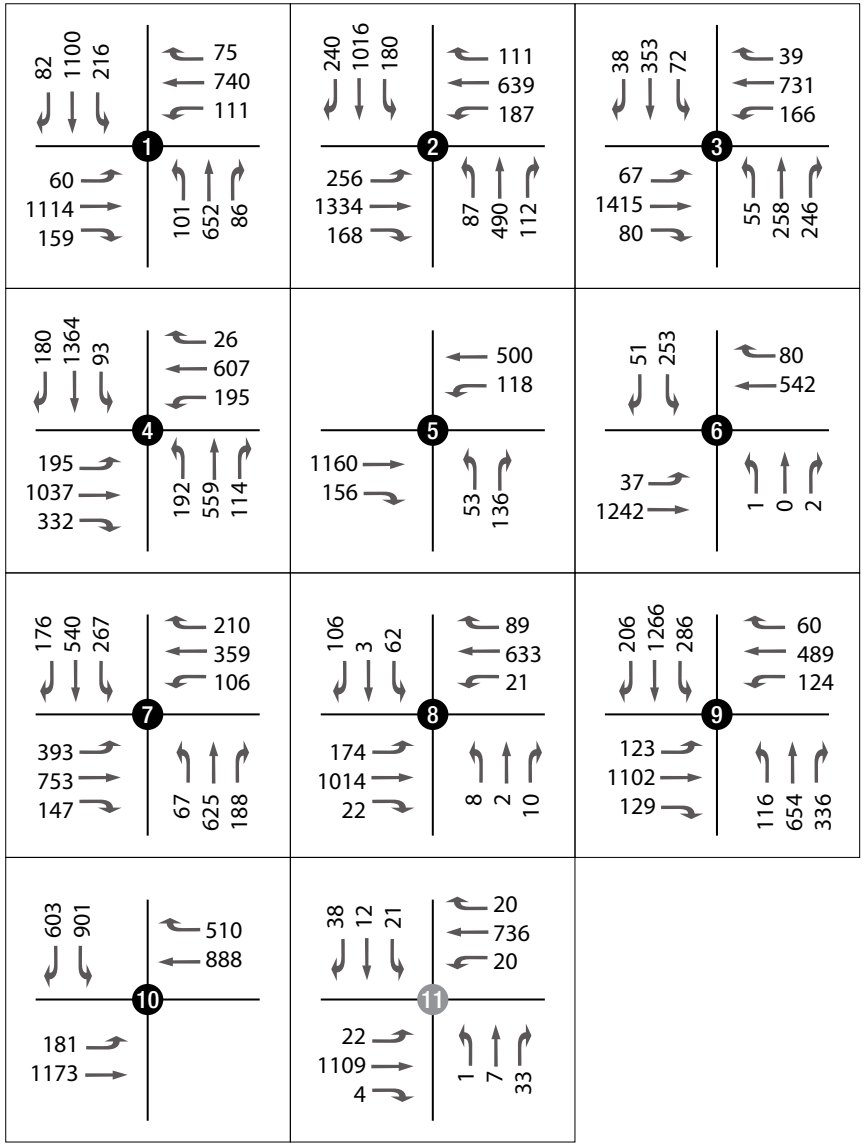
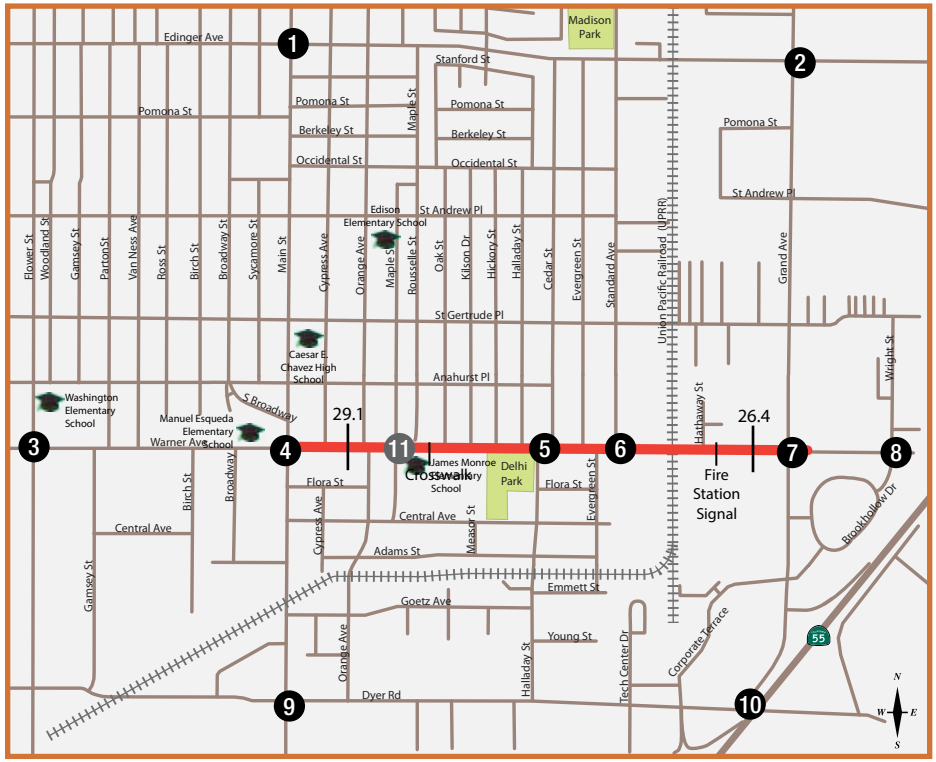
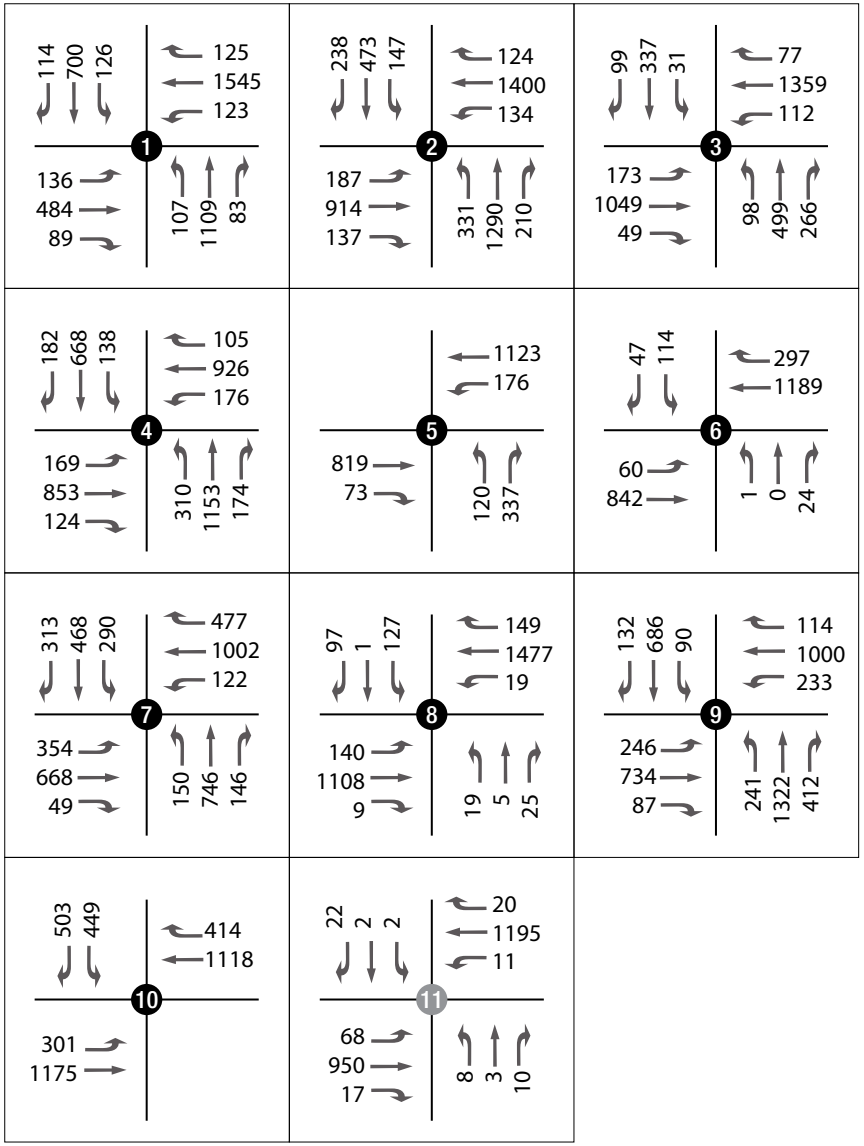


FIGURE 5-2 Opening (Year 2020) Without Project Volumes – PM Peak Hour

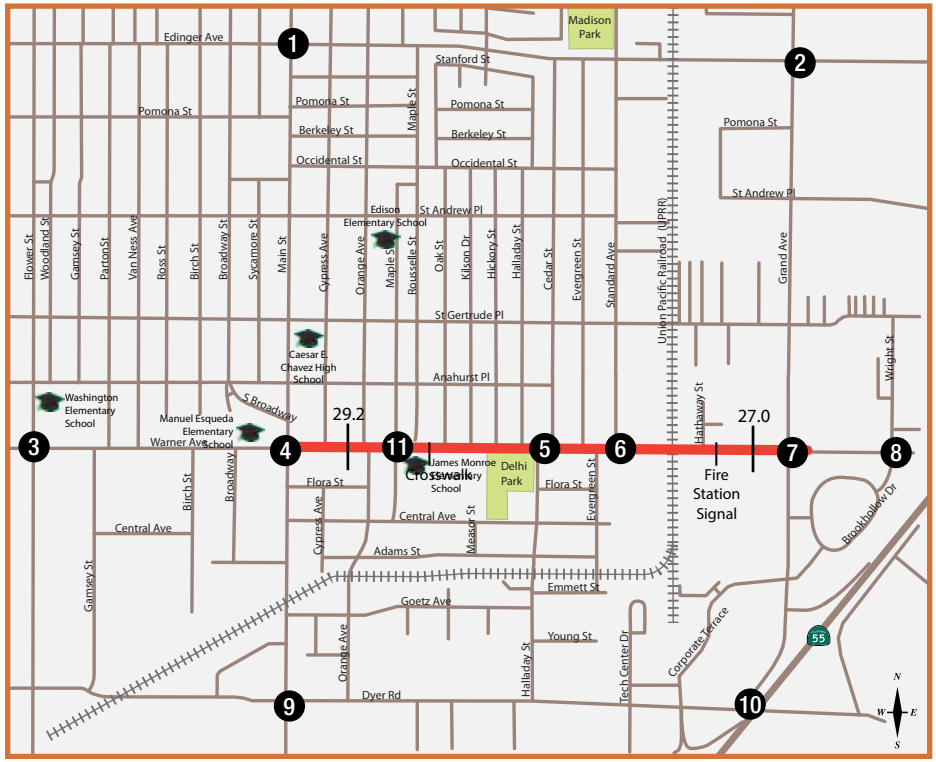




Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

FIGURE 5-3 Opening (Year 2020) With Project Volumes – AM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

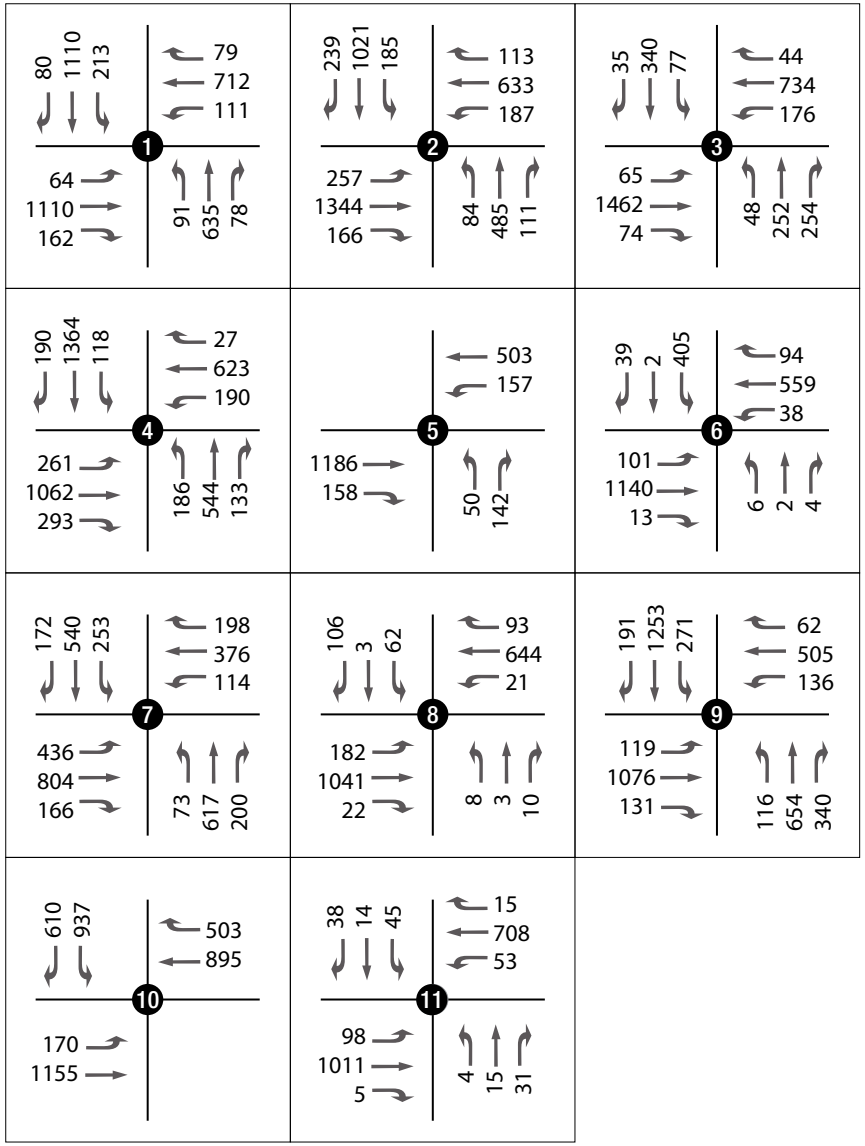
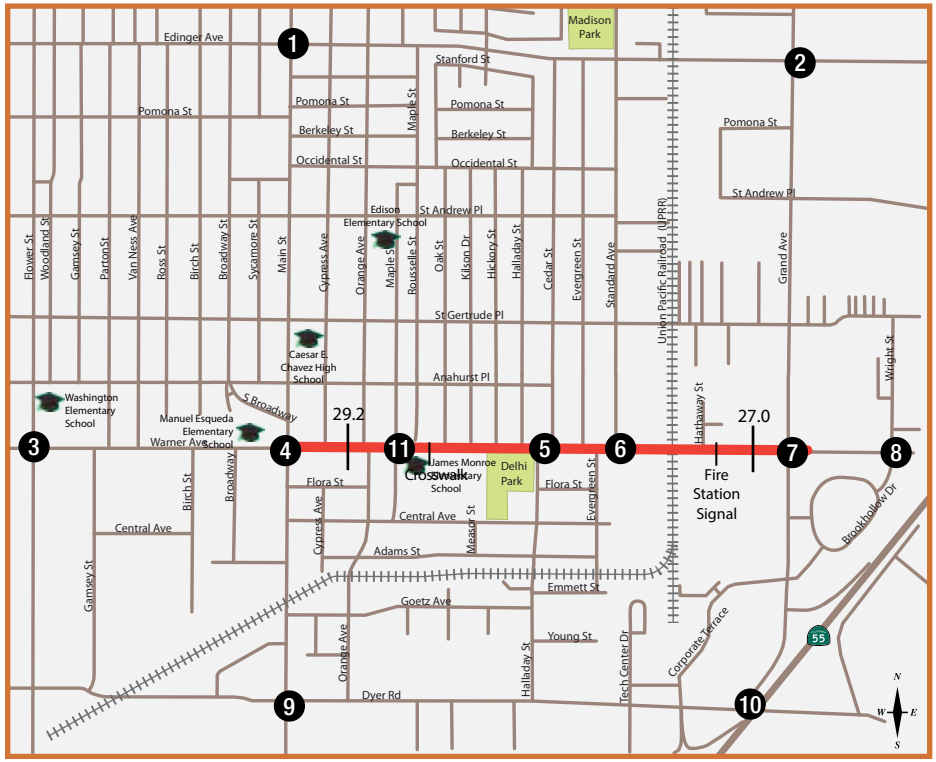
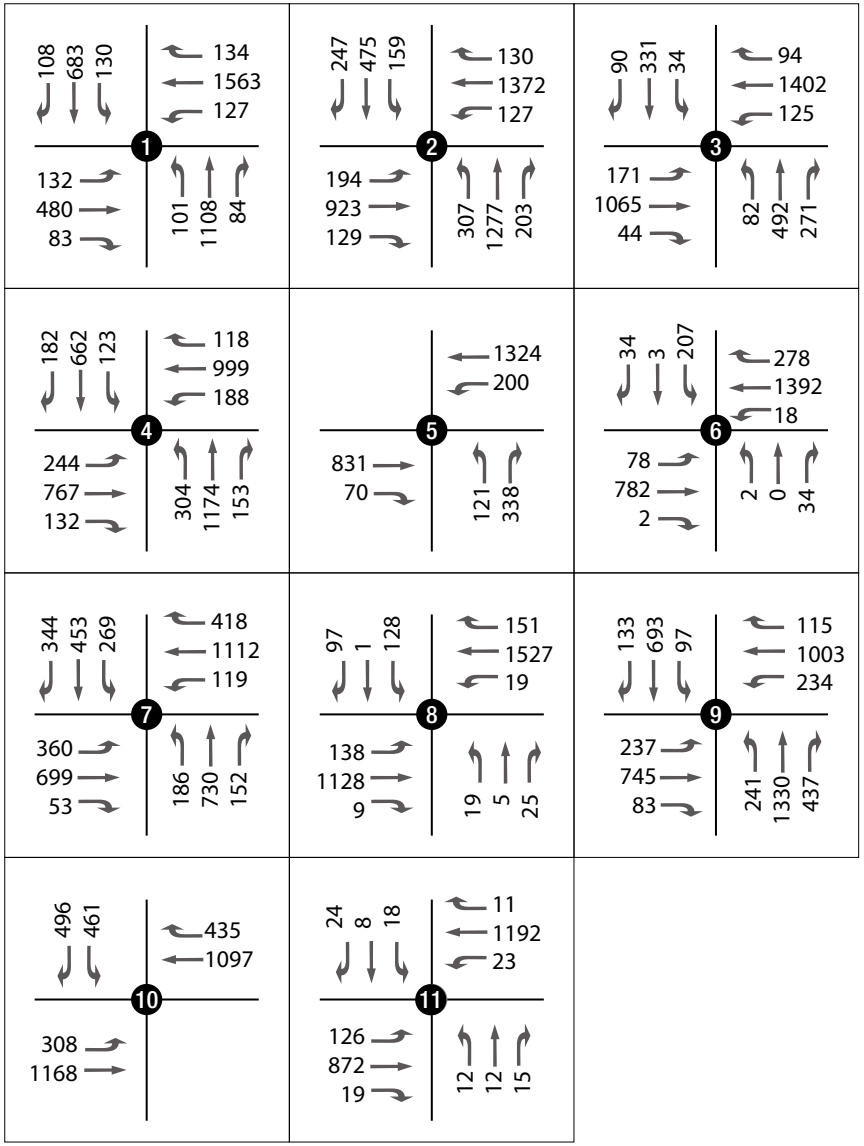


FIGURE 5-4 Opening (Year 2020) With Project Volumes – PM Peak Hour





Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

5.2 HORIZON YEAR 2035 TRAFFIC CONDITIONS

No changes to study intersection or roadway geometry are assumed as part of the future Without Project scenario. The traffic modeling of the future Without Project and With Project conditions incorporates roadway network modifications that are expected to be in place by year 2035, including:

- Alton Overcrossing

  The four-lane overcrossing will pass over SR-55 and connect the Alton Avenue segment at Standard Avenue in Santa Ana with Alton Parkway at Daimler Street in Irvine. Drop ramps will be provided from the overcrossing facility to the SR-55 high occupancy vehicle (HOV) lanes. This improvement will occur south of the study area boundary.

- Santa Ana Blvd Extension

  This project extends Santa Ana Boulevard as a four-lane primary arterial from Raitt Street to the west along the Pacific Electric right-of-way to SR-22. This improvement would occur north and west of the study area boundary.

- Bristol Street Widening

  The 3.9-mile segment of Bristol Street between Warner Avenue and Memory Lane will be widened from four undivided lanes to six divided lanes. This improvement will occur west of the study area boundary.

- Tustin Ranch Road Extension (note: this roadway improvement was completed in Fall 2013, but is listed as a future project since the Existing Conditions analysis is based on Year 2012)

  This project will extend Tustin Ranch Road as a six-lane major arterial between Irvine Center Drive and Warner Avenue. This improvement will occur in the City of Tustin, east of the study area boundary.

- Warner Avenue Extension

  Warner Avenue will be extended as a six-lane major arterial between Tustin Ranch Road and Red Hill Avenue. This improvement will occur in the City of Tustin, east of the study area boundary.

The OCTAM 3.4 network for 2035 also includes the following improvements:

- Freeway improvement projects (Renewed Measure M Early Action Plan)
- Transit Improvements (Balanced Alternative of OCTA's Long Range Transportation Plan (LRTP))

The horizon year 2035 peak hour turning movement volumes were forecast by applying growth factors derived from OCTAM 3.4 to existing counts collected in 2012, consistent with the method applied for the Year 2020 project opening condition.

5.2.1 Horizon Year 2035 Traffic Conditions – Without Project

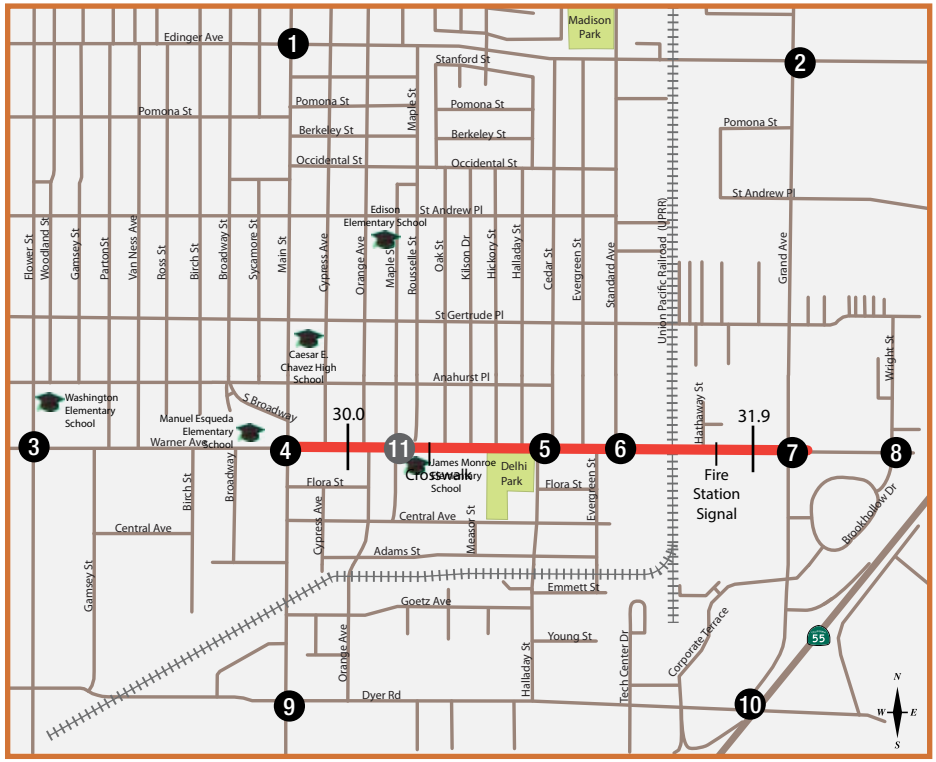
The City of Santa Ana has identified the Year 2035 as the anticipated horizon year for the proposed improvements on Warner Avenue. Year 2035 AM and PM peak hour volumes without the project are shown in Figure 5-5 and Figure 5-6, respectively.

5.2.2 Horizon Year 2035 Traffic Conditions With Project

As in the opening year, the project is expected to cause redistribution in local traffic patterns as drivers shift from parallel facilities onto the enhanced Warner Avenue. As with the year 2020 volume forecast,

the year 2035 with project volumes were derived based on existing peak hour count data and forecast link volumes obtained from OCTAM 3.4, refined to reflect the removal of left turns at unsignalized cross streets due to the new raised median. The year 2035 AM and PM peak hour volumes with the project are shown in Figure 5-7 and Figure 5-8.

FIGURE 5-5 Horizon (Year 2035) Without Project Volumes – AM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

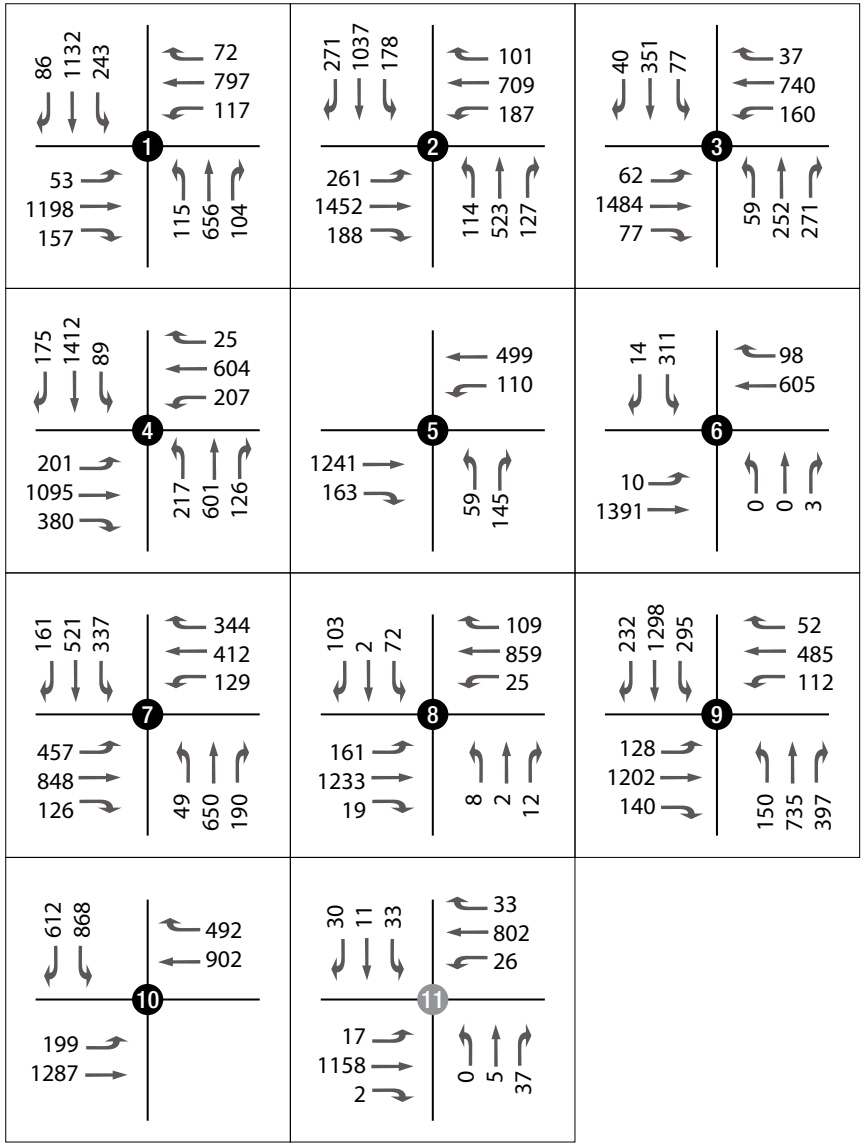
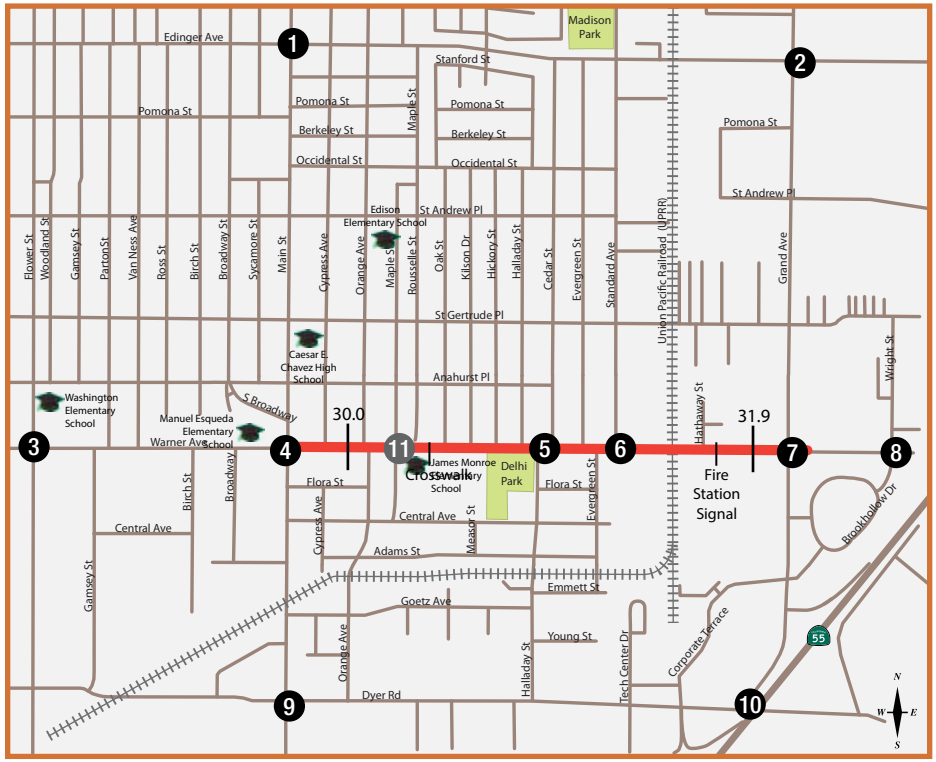
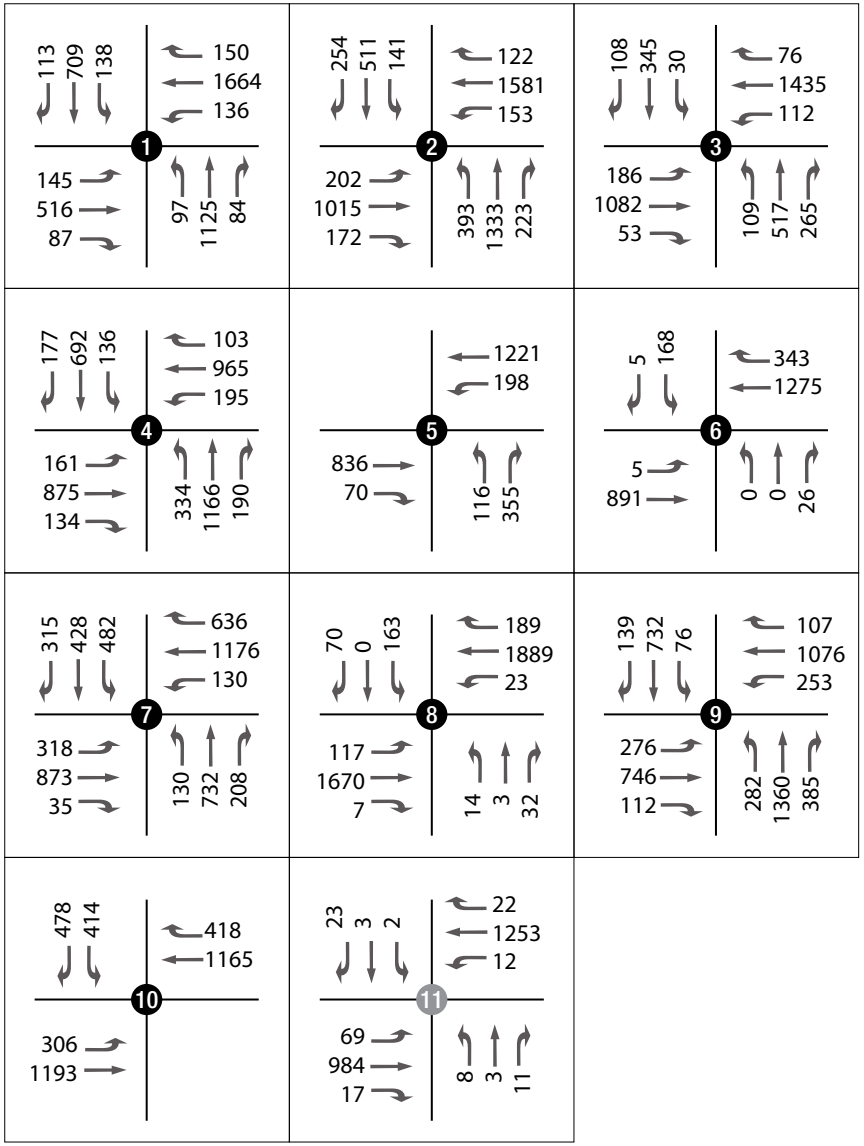


FIGURE 5-6 Horizon (Year 2035) Without Project Volumes – PM Peak Hour

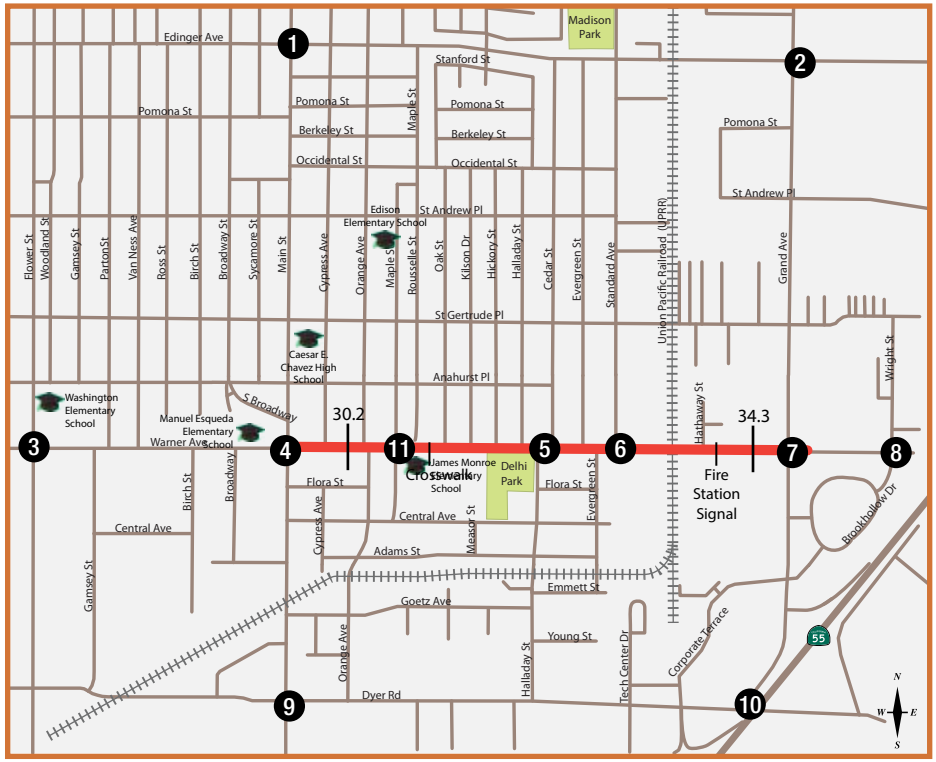




Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

FIGURE 5-7 Horizon (Year 2035) With Project Volumes – AM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)

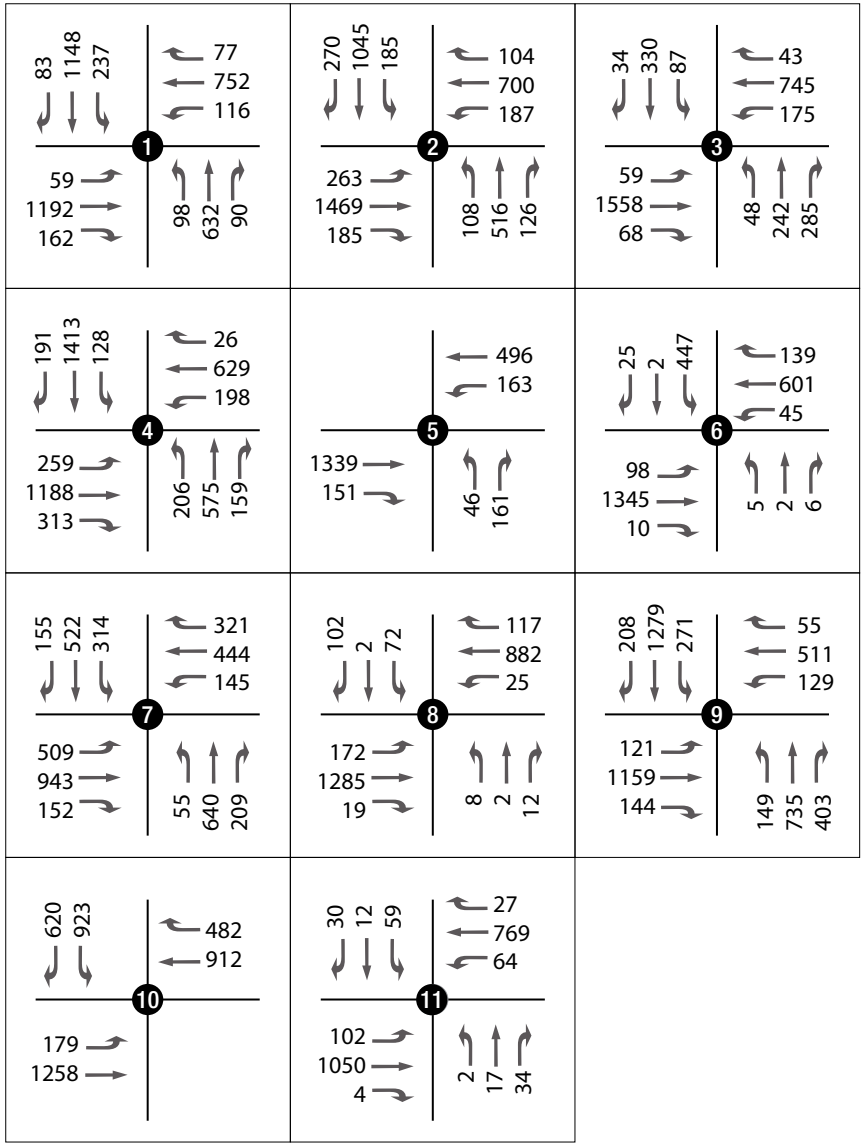
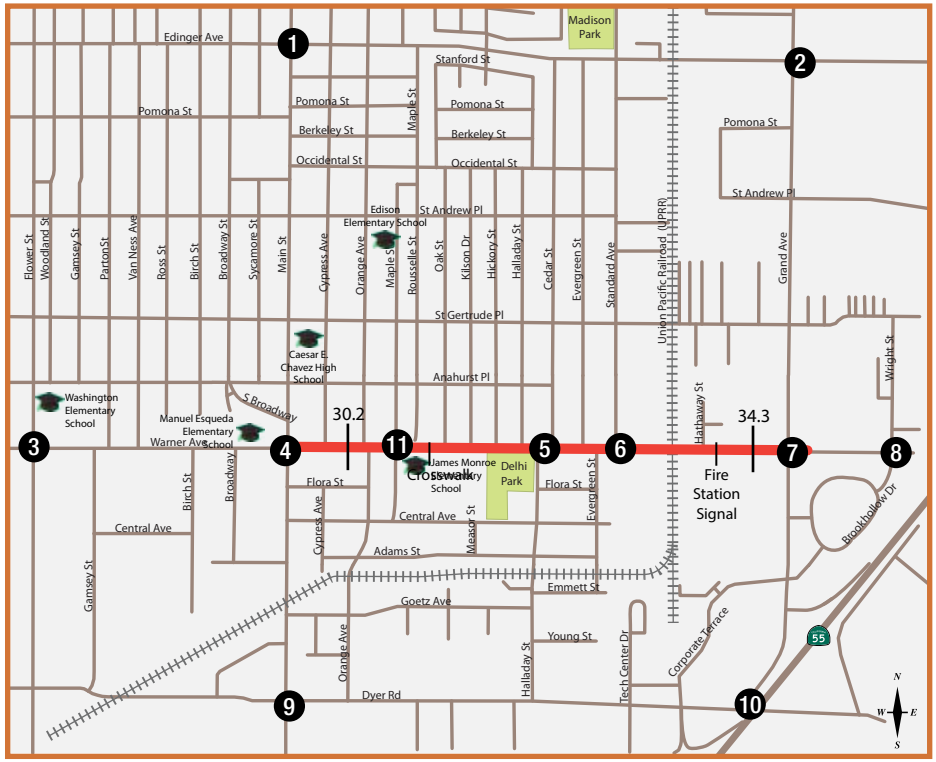
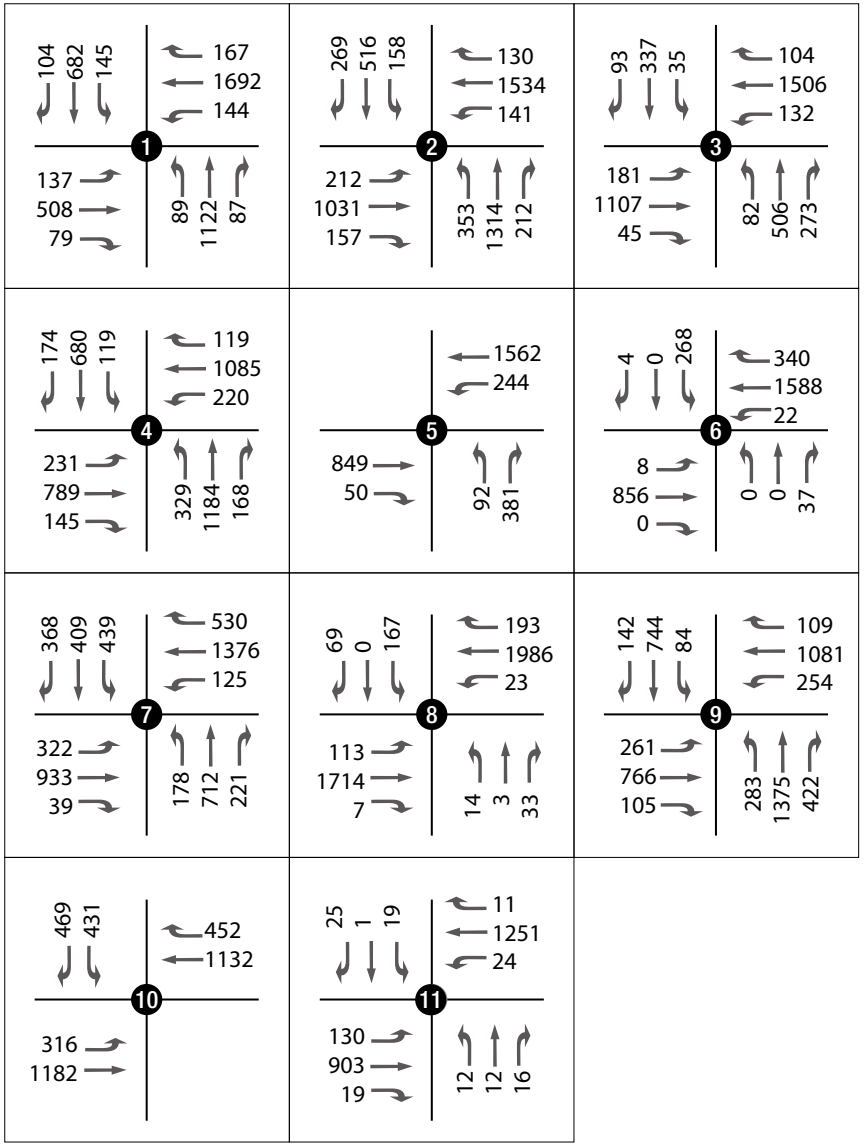


FIGURE 5-8 Horizon (Year 2035) With Project Volumes – PM Peak Hour



Legend

- Project Study Area Boundary
- Widening Project Corridor
- Railroad Tracks
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- # Study Intersection Number
- ## Turning Movement Volume
- ## Arterial 24-Hour Volume (1000's)



6.0 Traffic Impact Analysis

6.1 EXISTING YEAR 2012

A summary of the AM peak hour level of service analysis results for the existing year 2012 Without Project and With Project condition is included in Table 6-1. The proposed project would result in improved operations at two of the study intersections during the AM peak hour. All intersections are forecast to operate at an acceptable LOS of C or better in the with project condition.

Table 6-1: Existing (Year 2012) Intersection Level of Service (LOS) Results – AM Peak Hour

Intersection		Without Project		With Project		Change in V/C / Average Delay (s)	Impact
		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS		
1	Main St & Edinger Ave	0.786	C	0.786	C	0.000	
2	Grand Ave & Edinger Ave	0.697	B	0.697	B	0.000	
3	Flower St & Warner Ave	0.780	C	0.780	C	0.000	
4	Main St & Warner Ave	0.726	C	0.648	B	-0.078	
5	Halladay St & Warner Ave	0.564	A	0.445	A	-0.119	
6	Standard Ave & Warner Ave	0.433	A	0.436	A	0.003	
7	Grand Ave & Warner Ave	0.465	A	0.450	A	-0.015	
8	Wright St & Warner Ave	0.339	A	0.323	A	-0.016	
9	Main St & Dyer Rd	0.735	C	0.735	C	0.000	
10	Grand Ave & Dyer Rd	0.685	B	0.685	B	0.000	
11	Maple St & Warner Ave	1.5 s[(1)]	A	0.333	A	n/a	

Note 1: The HCM method reports the average delay at the unsignalized intersection. Some approaches may experience higher delays

A summary of the PM peak hour level of service analysis results for the existing year 2012 Without Project and With Project condition is included in Table 6-2. The proposed project would result in improved operations at two of the study intersections during the PM peak hour. The proposed project results in a 1% increase in volume-to-capacity (V/C) at one of the study intersections; however, the intersection continues to operate at LOS A and is therefore not considered a significant impact. All intersections are forecast to operate at LOS D or better in the With Project condition.

Table 6-2: Existing (Year 2012) Intersection Level of Service (LOS) Results – PM Peak Hour

Intersection		Without Project		With Project		Change in V/C / Average Delay (s)	Impact
		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS		
1	Main St & Edinger Ave	0.842	D	0.842	D	0.000	
2	Grand Ave & Edinger Ave	0.791	C	0.791	C	0.000	
3	Flower St & Warner Ave	0.838	D	0.790	C	-0.048	
4	Main St & Warner Ave	0.836	D	0.688	B	-0.148	
5	Halladay St & Warner Ave	0.582	A	0.482	A	-0.100	
6	Standard Ave & Warner Ave	0.519	A	0.554	A	0.035	
7	Grand Ave & Warner Ave	0.648	B	0.600	A	-0.048	

Intersection		Without Project		With Project		Change in V/C / Average Delay (s)	Impact
		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS		
8	Wright St & Warner Ave	0.497	A	0.443	A	-0.054	
9	Main St & Dyer Rd	0.862	D	0.862	D	0.000	
10	Grand Ave & Dyer Rd	0.686	B	0.686	B	0.000	
11	Maple St & Warner Ave	1.1 s (1)	A	0.427	A	n/a	

Note 1: The HCM method reports the average delay at the unsignalized intersection. Some approaches may experience higher delays

6.2 OPENING YEAR 2020

A summary of the AM peak hour level of service analysis results for the opening year 2020 Without Project and With Project condition is included in Table 6-3. The proposed project would result in improved operations at five of the study intersections during the AM peak hour. The proposed project results in a 1% increase in volume-to-capacity (V/C) at one of the study intersections; however, the intersection continues to operate at an acceptable level of service and is therefore not considered significant.

Table 6-3: Opening (Year 2020) Intersection Level of Service (LOS) Results – AM Peak Hour

Intersection		Without Project		With Project		Change in V/C / Average Delay (s)	Impact
		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS		
1	Main St & Edinger Ave	0.871	D	0.866	D	-0.005	
2	Grand Ave & Edinger Ave	0.788	C	0.788	C	0.000	
3	Flower St & Warner Ave	0.809	D	0.828	D	0.019	
4	Main St & Warner Ave	0.798	C	0.741	C	-0.057	
5	Halladay St & Warner Ave	0.620	B	0.517	A	-0.103	
6	Standard Ave & Warner Ave	0.560	A	0.555	A	-0.005	
7	Grand Ave & Warner Ave	0.636	B	0.634	B	-0.002	
8	Wright St & Warner Ave	0.418	A	0.383	A	-0.035	
9	Main St & Dyer Rd	0.832	D	0.825	D	-0.007	
10	Grand Ave & Dyer Rd	0.692	B	0.698	B	0.006	
11	Maple St & Warner Ave	2.6 s(1)	A	0.354	A	n/a	

Note 1: The HCM method reports the average delay at the unsignalized intersection. Some approaches may experience higher delays

A summary of the PM peak hour level of service analysis results for the opening year 2020 Without Project and With Project condition is included in Table 6-4. The proposed project would result in improved operations at four of the study intersections during the PM peak hour. The proposed project results in a 1% increase in volume-to-capacity (V/C) at two of the study intersections. Both of these intersections continue to operate at an acceptable level of service, and are not considered to be a significant impact.

Table 6-4: Opening (Year 2020) Intersection Level of Service (LOS) Results – PM Peak Hour

Intersection	Without Project	With Project	Change	Impact

		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS	in V/C / Average Delay (s)	
1	Main St & Edinger Ave	0.926	E	0.931	E	0.005	
2	Grand Ave & Edinger Ave	0.880	D	0.884	D	0.004	
3	Flower St & Warner Ave	0.910	E	0.870	D	-0.040	
4	Main St & Warner Ave	0.852	D	0.710	C	-0.142	
5	Halladay St & Warner Ave	0.649	B	0.574	A	-0.075	
6	Standard Ave & Warner Ave	0.521	A	0.595	A	0.074	
7	Grand Ave & Warner Ave	0.818	D	0.767	C	-0.051	
8	Wright St & Warner Ave	0.682	B	0.596	A	-0.086	
9	Main St & Dyer Rd	0.935	E	0.937	E	0.002	
10	Grand Ave & Dyer Rd	0.699	B	0.701	C	0.002	
11	Maple St & Warner Ave	1.4 s(1)	A	0.418	A	n/a	

Note 1: The HCM method reports the average delay at the unsignalized intersection. Some approaches may experience higher delays

6.3 HORIZON YEAR 2035

A summary of the AM peak hour level of service analysis results for the year 2035 Without and With Project conditions is included in Table 6-5. The proposed project improvements are expected to provide acceptable operations (LOS D or better) at 10 of the 11 study intersections along the project corridor through the horizon year. The intersection of Main Street and Edinger Avenue (#1) is forecast to operate at an unacceptable level of service (LOS E) in the Without Project condition. This intersection continues to operate at LOS E in the With Project condition; however, the volume-to-capacity improves by 0.009.

Table 6-5: Horizon (Year 2035) Intersection Level of Service (LOS) Results – AM Peak Hour

Intersection		Without Project		With Project		Change in V/C / Average Delay (s)	Impact
		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS		
1	Main St & Edinger Ave	0.920	E	0.911	E	-0.009	
2	Grand Ave & Edinger Ave	0.844	D	0.845	D	0.001	
3	Flower St & Warner Ave	0.826	D	0.856	D	0.030	
4	Main St & Warner Ave	0.840	D	0.796	C	-0.044	
5	Halladay St & Warner Ave	0.648	B	0.563	A	-0.085	
6	Standard Ave & Warner Ave	0.641	B	0.628	B	-0.006	
7	Grand Ave & Warner Ave	0.780	C	0.778	C	-0.002	
8	Wright St & Warner Ave	0.474	A	0.436	A	-0.038	
9	Main St & Dyer Rd	0.898	D	0.884	D	-0.014	
10	Grand Ave & Dyer Rd	0.697	B	0.704	C	0.007	
11	Maple St & Warner Ave	2.6 s(1)	A	0.380	A	n/a	

Note 1: The HCM method reports the average delay at the unsignalized intersection. Some approaches may experience higher delays

A summary of the PM peak hour level of service analysis results for the year 2035 Without and With project conditions is included in Table 6-6. The proposed project improvements are expected to provide acceptable operations (LOS D or better) at six of the 11 study intersections along the project corridor

through the horizon year. Five of the study intersections are forecast to operate at an unacceptable level of service E or worse, but no project related impacts are forecast. Additionally, no impacts are anticipated at the signalized intersections of Warner Avenue at Halladay Street, Standard Avenue, and Maple Street. These streets will serve as the primary access points into and out of the surrounding neighborhoods, and all three streets are anticipated to operate at LOS B or better in the AM and PM peak hours.

Table 6-6: Horizon (Year 2035) Intersection Level of Service (LOS) Results – PM Peak Hour

Intersection		Without Project		With Project		Change in V/C / Average Delay (s)	Impact
		V/C / Average Delay (s)	LOS	V/C / Average Delay (s)	LOS		
1	Main St & Edinger Ave	0.974	E	0.983	E	0.009	
2	Grand Ave & Edinger Ave	0.928	E	0.937	E	0.009	
3	Flower St & Warner Ave	0.951	E	0.917	E	0.026	
4	Main St & Warner Ave	0.861	D	0.730	C	-0.131	
5	Halladay St & Warner Ave	0.700	B	0.628	B	-0.072	
6	Standard Ave & Warner Ave	0.547	A	0.634	B	0.087	
7	Grand Ave & Warner Ave	1.036	F	0.946	E	-0.016	
8	Wright St & Warner Ave	0.811	D	0.710	C	-0.101	
9	Main St & Dyer Rd	0.978	E	0.910	E	-0.068	
10	Grand Ave & Dyer Rd	0.705	C	0.701	C	-0.004	
11	Maple St & Warner Ave	1.4 s[(1)]	A	0.430	A	n/a	

Note 1: The HCM method reports the average delay at the unsignalized intersection. Some approaches may experience higher delays

7.0 Roadway Segment Analysis

7.1 EXISTING YEAR 2012

The existing year daily volumes on Warner Avenue without the project, assumed lane configuration, and corresponding LOS are summarized in Table 7-1. The existing year daily volumes on Warner Avenue with the project and is summarized in Table 7-2.

Table 7-1 Existing (Year 2012) LOS on Warner Avenue – Without Project

Road Segment	Section Limits	Lane Configuration	Daily Volume	LOS
Warner Ave	Between Main St & Halladay St	4 lanes undivided	28,640	F
Warner Ave	Between Standard Ave & Grand Ave	4 lanes undivided	23,814	~~D~~E

Table 7-2 Existing (Year 2012) LOS on Warner Avenue – With Project

Road Segment	Section Limits	Lane Configuration	Daily Volume	LOS
Warner Ave	Between Main St & Halladay St	6 lanes divided	29,833	A
Warner Ave	Between Standard Ave & Grand Ave	6 lanes divided	24,920	A

7.2 OPENING YEAR 2020

The project opening year daily volumes on Warner Avenue without the project, assumed lane configuration, and corresponding LOS are summarized in Table 7-3. The with project daily volumes, assumed lane configuration, and corresponding LOS are summarized in Table 7-4.

Table 7-3 Opening (Year 2020) LOS on Warner Avenue – Without Project

Road Segment	Section Limits	Lane Configuration	Daily Volume	LOS
Warner Ave	Between Main St & Halladay St	4 lanes undivided	29,091	F
Warner Ave	Between Standard Ave & Grand Ave	4 lanes undivided	26,369	F

Table 7-4 Opening (Year 2020) LOS on Warner Avenue – With Project

Road Segment	Section Limits	Lane Configuration	Daily Volume	LOS
Warner Ave	Between Main St & Halladay St	6 lanes divided	29,164	A
Warner Ave	Between Standard Ave & Grand Ave	6 lanes divided	27,030	A

7.3 HORIZON YEAR 2035

The horizon year daily volumes on Warner Avenue without the project, assumed lane configuration, and corresponding LOS are summarized in Table 7-5. The with project daily volumes, assumed lane configuration, and corresponding LOS are summarized in Table 7-6.

Table 7-5 Horizon (Year 2035) LOS on Warner Avenue – Without Project

Road Segment	Section Limits	Lane Configuration	Daily Volume	LOS
Warner Ave	Between Main St & Halladay St	4 lanes undivided	29,955	F
Warner Ave	Between Standard Ave & Grand Ave	4 lanes undivided	31,921	F

Table 7-6 Horizon (Year 2035) LOS on Warner Avenue – With Project

Road Segment	Section Limits	Lane Configuration	Daily Volume	LOS
Warner Ave	Between Main St & Halladay St	6 lanes divided	30,174	A
Warner Ave	Between Standard Ave & Grand Ave	6 lanes divided	34,278	B

8.0 Orange County Congestion Management Program Analysis

The Orange County Congestion Management Program (CMP) requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (CMPHS). Per the CMP guidelines, this number is based on the desire to analyze any impacts that will be three percent or more of the existing CMP highway system facilities' capacity. The CMPHS includes designated CMP intersection and CMP arterial monitoring locations. Edinger Avenue is a designated CMP arterial. The study area includes two study intersections that are located on a CMP arterial, but are not designated CMP intersections.

The Orange County Congestion Management Program (CMP) monitors the level of service at all designated CMP intersections in the County. Edinger Avenue is designated as a CMP arterial. There are two study intersections located on Edinger Avenue (at Main Street and Grand Avenue); however, they are not designated CMP intersections.

Table 8.1 summarizes the LOS at this CMP arterial for the Year 2035 Without Project and Year 2035 With Project conditions. The volumes were developed based on OCTAM ADT link volumes on Edinger Avenue. The facility is forecast to operate at an acceptable level of service in the With Project condition.

Table 8-1 CMP Arterial LOS on Edinger Avenue

Road Segment	Section Limits	Lane Configuration	CMP Guideline	Year 2035 Without Project		Year 2035 With Project	
				ADT	LOS	ADT	LOS
Edinger Avenue	Between Main St & Grand Ave	6 lanes divided	50,600	42,620	C	43,614	C

9.0 Impacts

The proposed project is not expected to significantly impact any of the study intersections. No project impacts were identified.

10.0 Project Construction Traffic Conditions

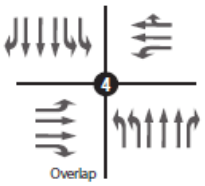
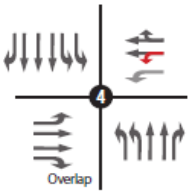
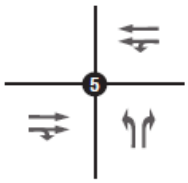
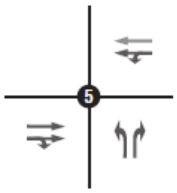
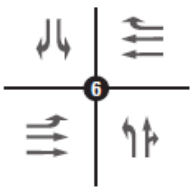
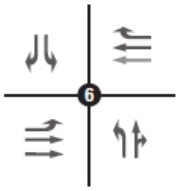
Forecast traffic conditions associated with the construction of the proposed project are presented in this section. It is anticipated that heavy vehicle traffic associated with the construction will not circulate during peak periods, and that lane closures during peak periods should be minimized or avoided. If the construction schedule mandates lane closures during peak periods, traffic should be managed to give priority to the direction that has the heaviest traffic. The construction contractor would be required to prepare a construction traffic management plan. This plan will identify construction traffic control requirements, traffic detours and other necessary measures.

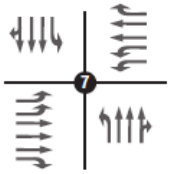
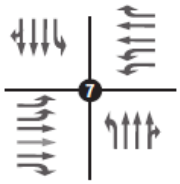
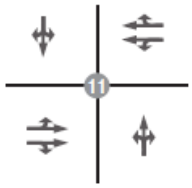
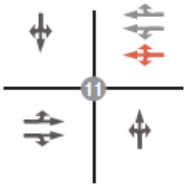
The widening of Warner Avenue is proposed to be constructed in three phases:

- Phase I – North side widening – Will maintain two eastbound lanes, left turn pockets, and one westbound lane. One westbound lane would be removed.
- Phase II- South side widening - Will maintain two eastbound lanes, left turn pockets, and two westbound lane. No reduction in lane capacity.
- Phase III- Work in the middle - Will maintain two eastbound lanes, left turn pockets, and two westbound lane. No reduction in lane capacity.

The traffic analysis for the Project Construction condition was conducted using the Year 2020 Without Project volumes, and considers the temporary loss of one traffic lane due to construction. The changes in intersection geometry and the correspondent level of service are shown in table 10-1 and the analysis for this condition is presented below.

Table 10-1: Year 2020 Project Construction Intersection Level of Service (LOS) Results

Intersection	Without Project		During Construction	
	Geometry and Control	V/C LOS (ICU) / Delay (s)	Geometry and Control	V/C LOS (ICU) / Delay (s)
(4) Main St & Warner Ave	 Protected Lefts	AM 0.798 C PM 0.852 D	 NB, SB & EB Protected Lefts	AM 0.752 C PM 0.909 E
(5) Halladay St & Warner Ave	 NB Protected Lefts	0.620 B PM 0.649 B	 NB Protected Lefts	AM 0.620 B PM 1.072 F
(6) Standard Ave & Warner Ave	 Protected Lefts	0.560 A PM 0.521 A	 Protected Lefts	AM 0.560 A PM 0.860 D

Intersection	Without Project		During Construction	
	Geometry and Control	V/C LOS (ICU) / Delay (s)	Geometry and Control	V/C LOS (ICU) / Delay (s)
(7) Grand Ave & Warner Ave	 EB & WB Protected Lefts	0.636 B PM 0.818 D	 EB & WB Protected Lefts	AM 0.636 B PM 0.821 D
(11) Maple St & Warner Ave		AM 2.6 s A PM 1.4 s A		AM 2.6 s A PM 2.3 s A

Note: ICU = intersection capacity utilization.

The intersections of Main Street and Warner Avenue (#4) and Halladay and Warner Avenue (#5) are forecast to operate at an unacceptable level of service in the Year 2020 during construction. The intersections are forecast to experience an increase in the V/C ratio, reaching unacceptable levels of service during the PM peak hour. As this is a temporary condition, management of this impact is expected to occur through the preparation and implementation of a detailed construction traffic control plan and limitation of lane closures on Warner during peak periods.

The intersection of Maple Street and Warner Avenue (#11) is expected to experience a slightly worse level of service than in the Without Project condition, with an acceptable level of service for the intersection as a whole, but experiencing high delays in the north and south directions.

11.0 Findings and Recommendations

The proposed improvements on Warner Avenue from Main Street to Grand Avenue would widen the roadway from four to six lanes. The typical section will include a Class II bicycle lane and a landscaped median.

The completion of this project is expected to:

- improve this section of the roadway to be consistent with its City and MPAH designation
- improve mobility and circulation
- improve safety

Since the completion of the traffic analysis in April 2010, OCTA has released a new version of their regional model (OCTAM) and an updated Congestion Management Program (2011). The purpose of this update is to incorporate new traffic counts conducted in 2012, the new version of OCTAM, and an existing plus project scenario. Based on the new data, the project is not expected to result in significant impacts at any of the 11 study intersections through the horizon year 2035.

The roadway segment analysis confirms that the widening of Warner Avenue between Main Street and Grand Avenue is necessary to accommodate forecast traffic growth.

The raised landscaped median along Warner would restrict left turn movements at Maple Avenue, Halladay Avenue, and Standard Avenue. Based on the traffic analysis results, no significant impacts are forecast for these locations. The level of service at these three intersections are forecast to operate at LOS B or better with the Warner Avenue Widening.

Edinger Avenue is a designated CMP arterial, and an analysis of the roadway segment between Main Street and Grand Avenue was conducted. The segment continues to operate at an acceptable level of service in the horizon year 2035 with project condition.

Appendix

A. OCTAM LINK PLOTS

B. TRAFFIC COUNT DATA

C. TRAFFIX WORKSHEETS

APPENDIX

A.OCTAM LINK PLOTS

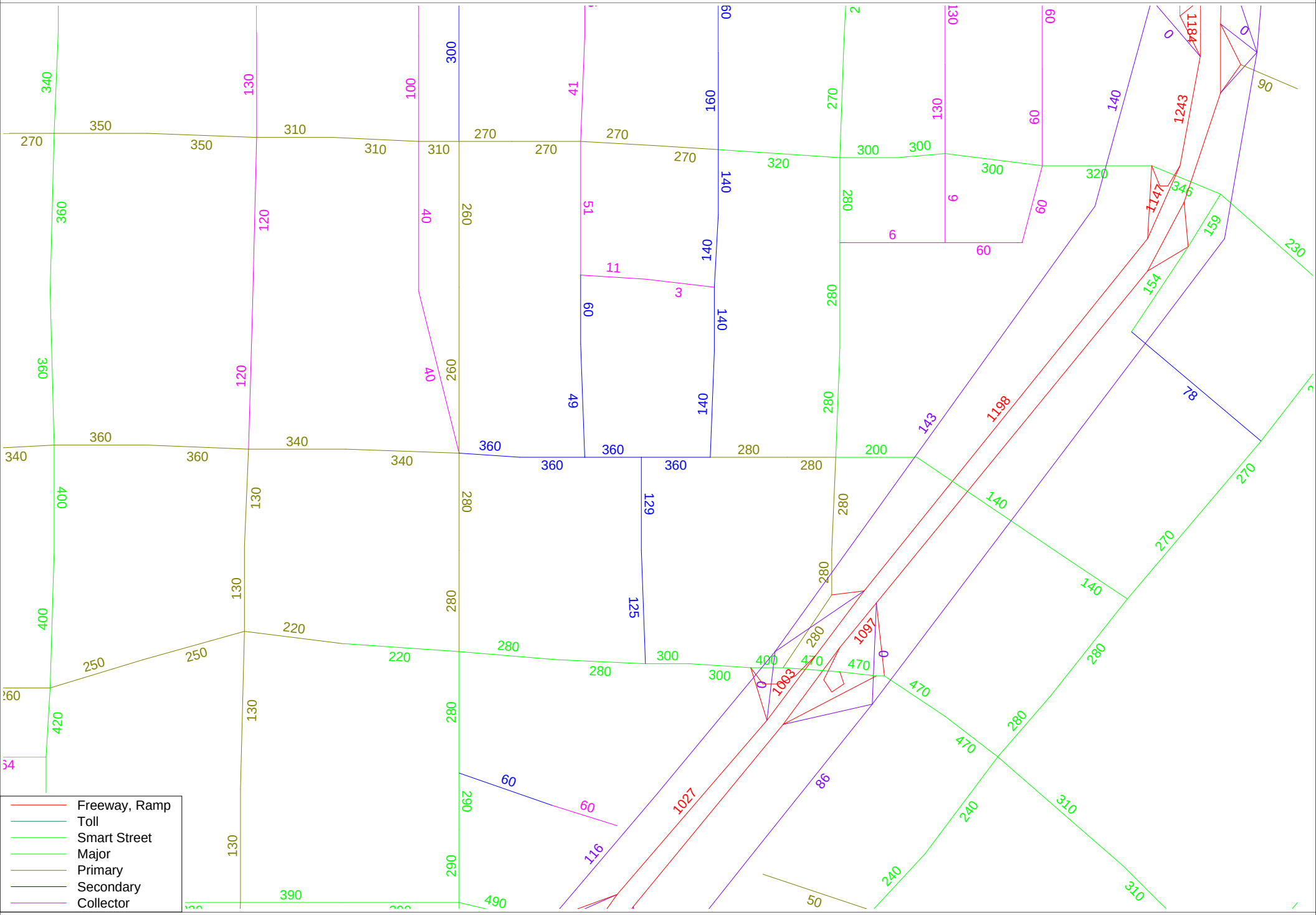
B.TRAFFIC COUNT DATA

C.TRAFFIX WORKSHEETS

OCTAM LINK PLOTS

YEAR 2010 – WITHOUT PROJECT

OCTAM3.4 - 2010 Base Year No Project
ADTs (in 100s)



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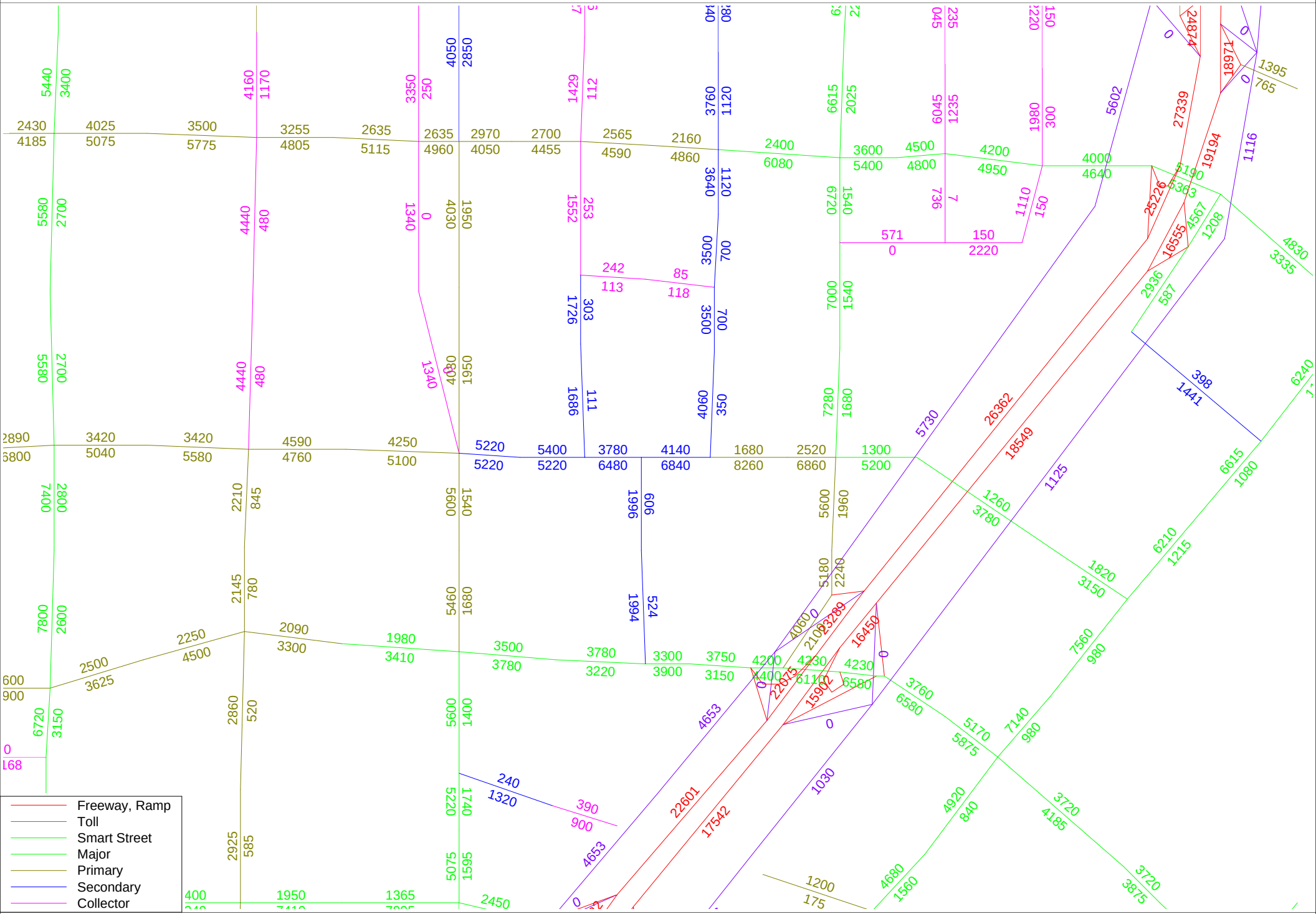
6/19/2012

OCTAM3.4 - 2010 Base Year No Project
AM Peak Period



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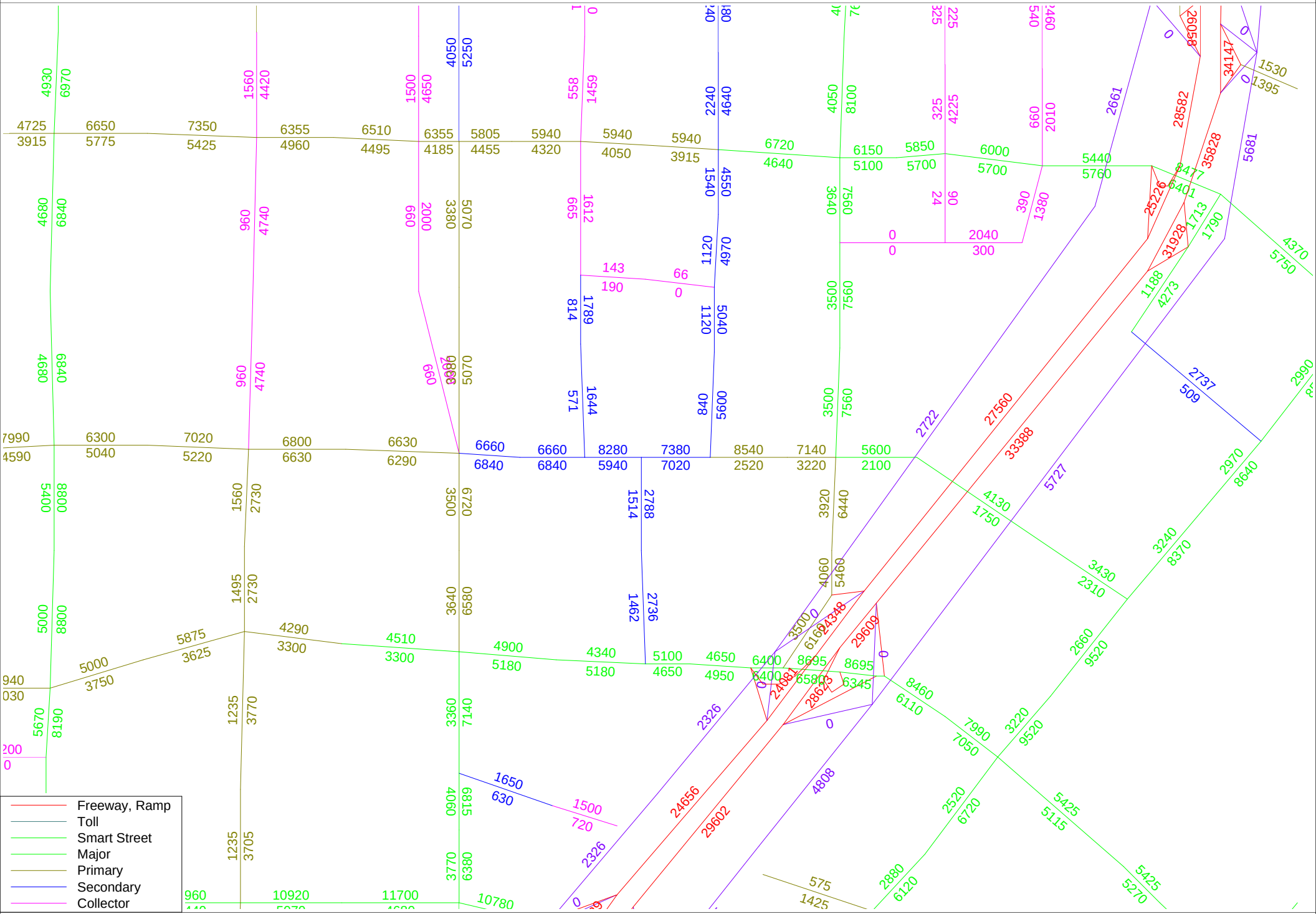
6/19/2012

OCTAM3.4 - 2010 Base Year No Project
PM Peak Period



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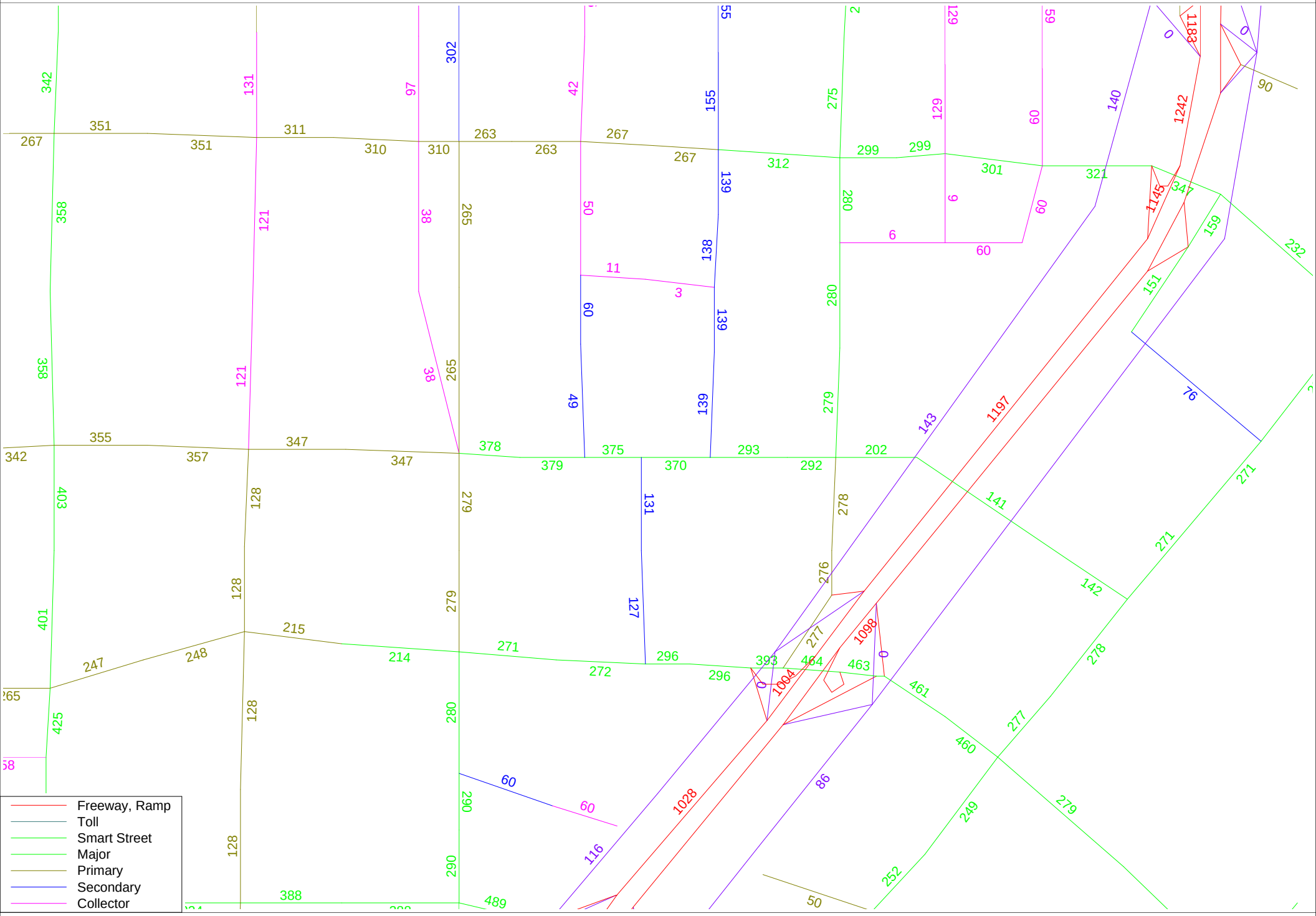
6/19/2012

OCTAM LINK PLOTS

YEAR 2010 – WITH PROJECT

OCTAM3.4 - 2010 Base Year With Project
ADTs (in 100s)



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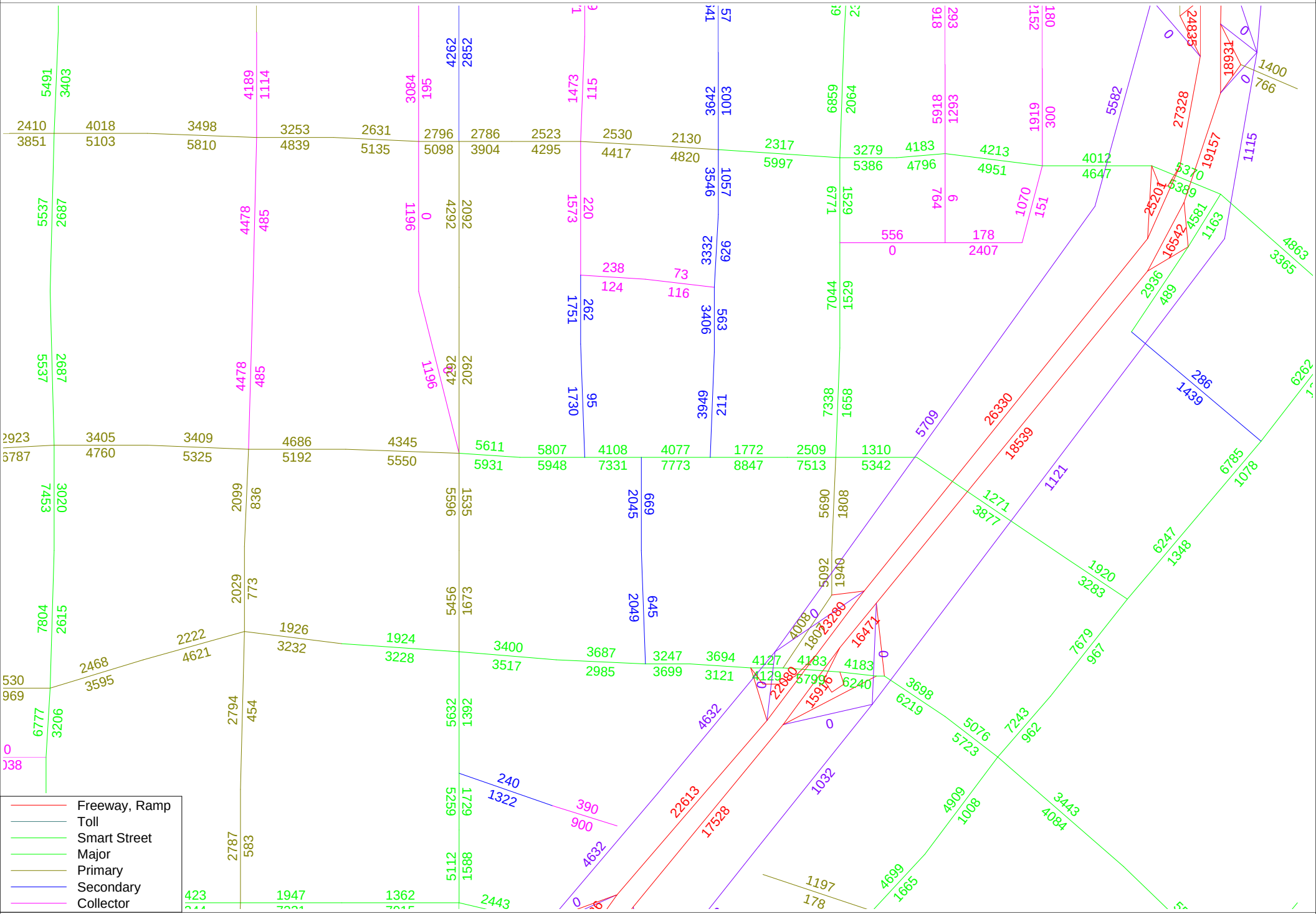
OCTAM3.4 - 2010 Base Year With Project
AM Peak Period



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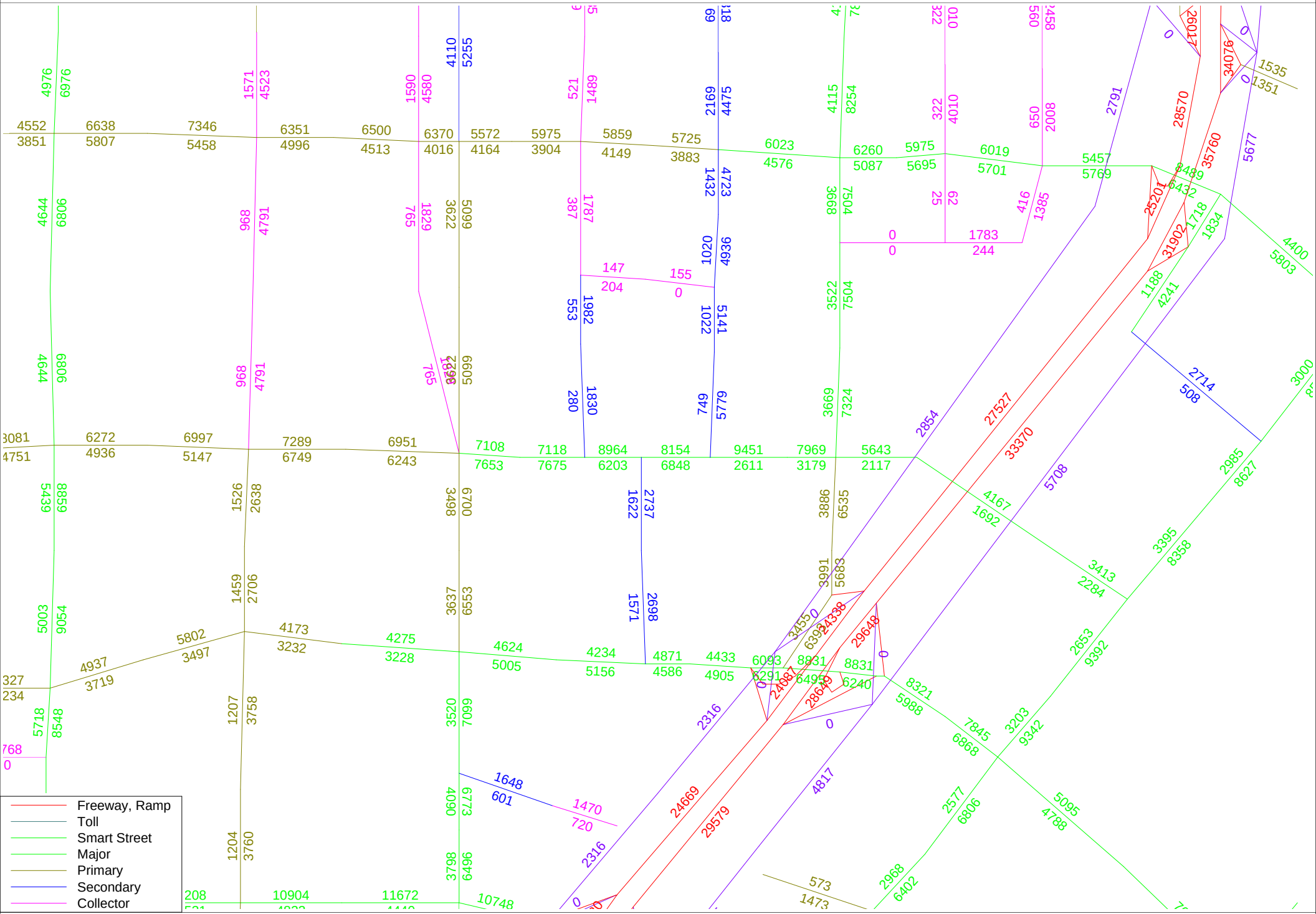
OCTAM3.4 - 2010 Base Year With Project
PM Peak Period



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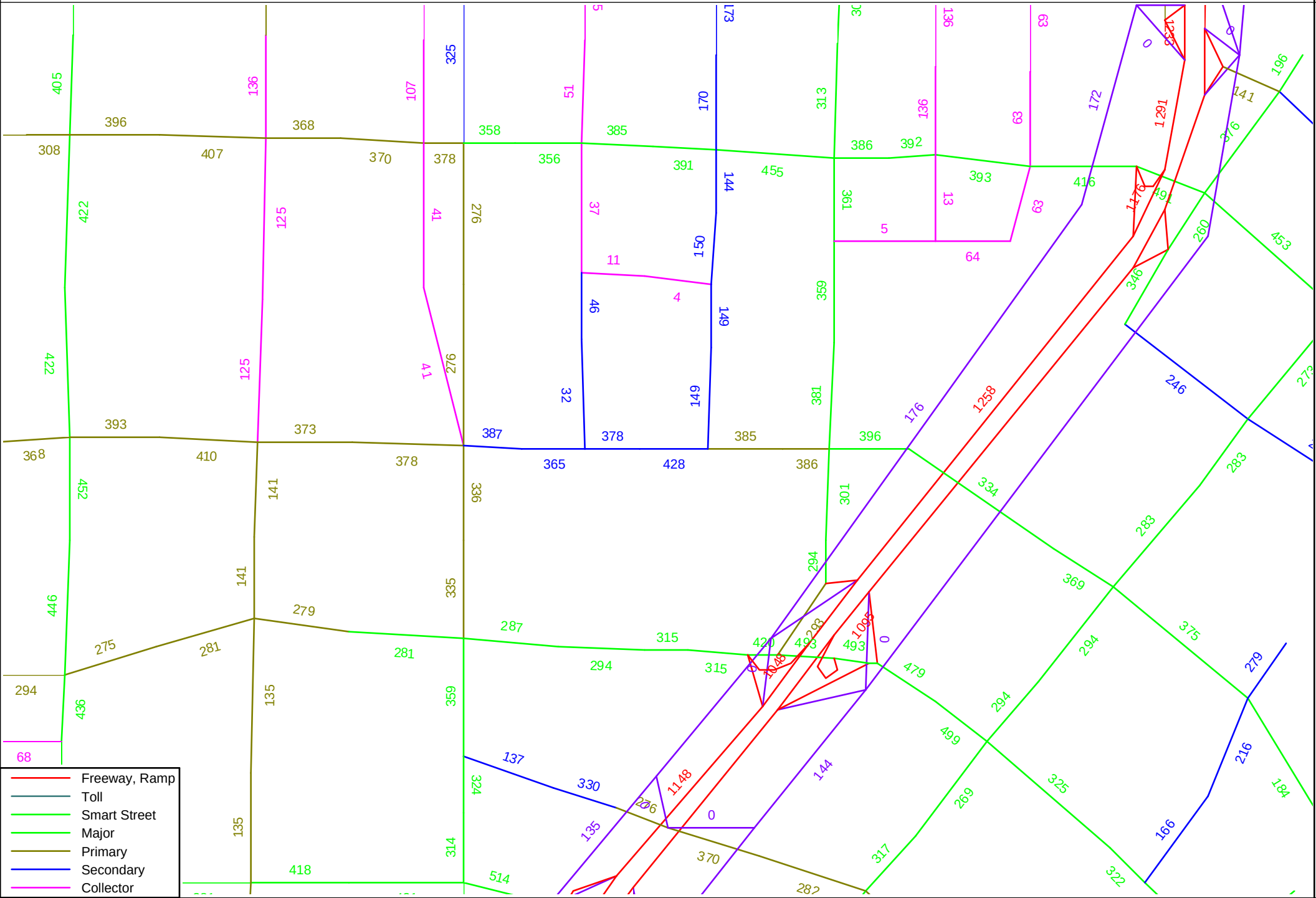
6/19/2012

OCTAM LINK PLOTS

YEAR 2035 – NO PROJECT

OCTAM3.4 - 2035 No Project

ADTs (in 100s)



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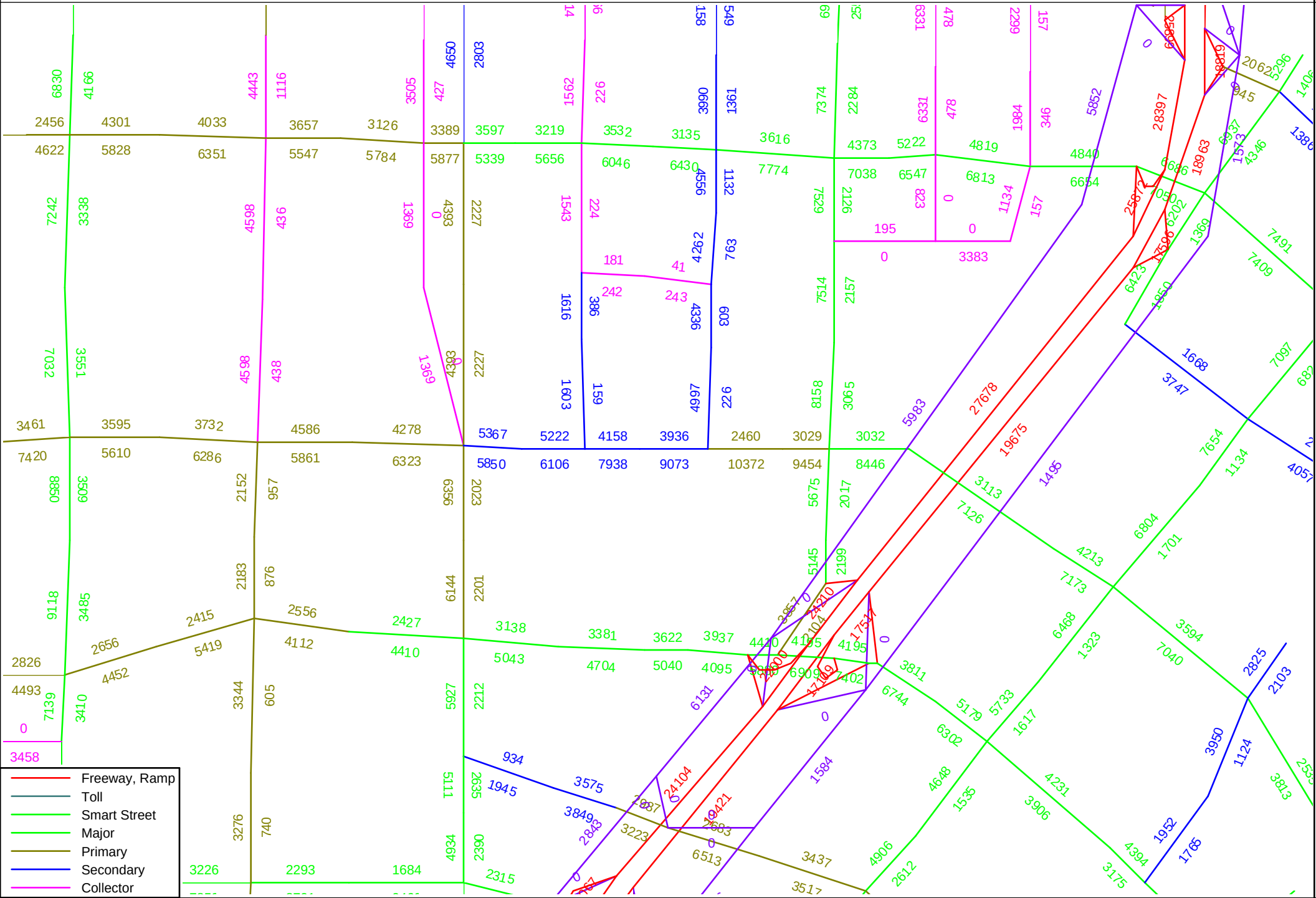
6/18/2012

OCTAM3.4 - 2035 No Project
AM Peak Period



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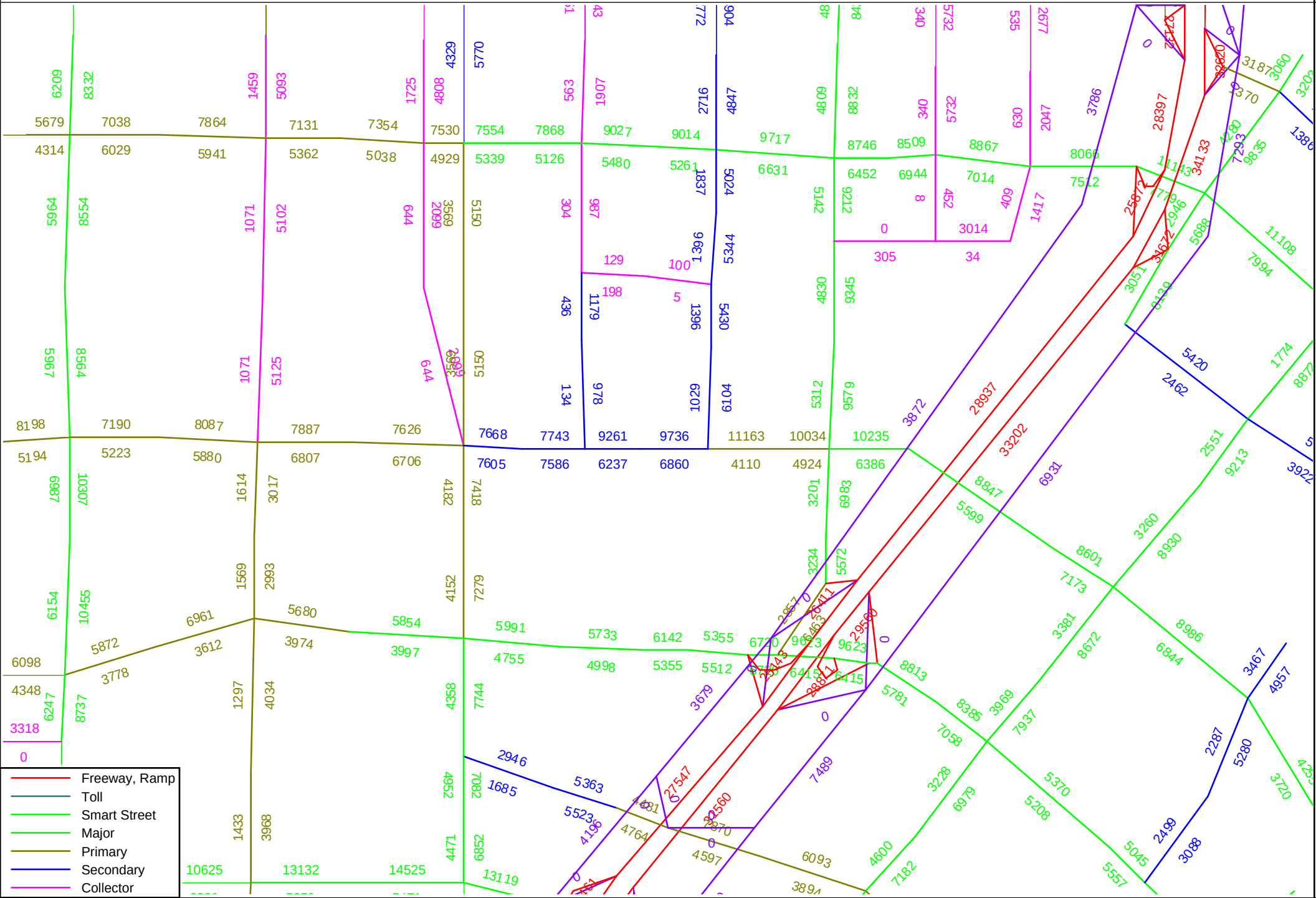
6/18/2012

OCTAM3.4 - 2035 No Project

PM Peak Period



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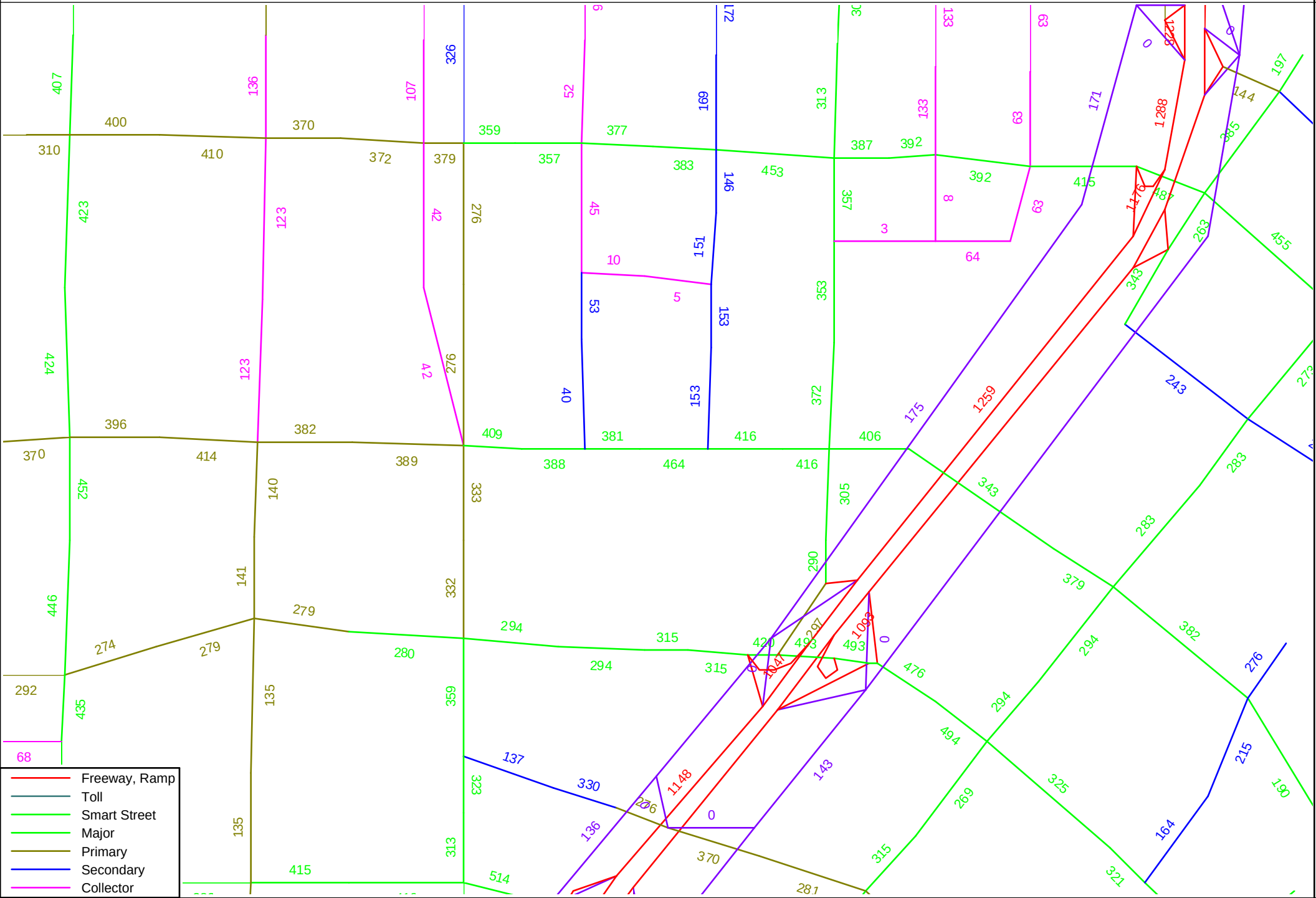
6/18/2012

OCTAM LINK PLOTS

YEAR 2035 – WITH PROJECT

OCTAM3.4 - 2035 With Project

ADTs (in 100s)



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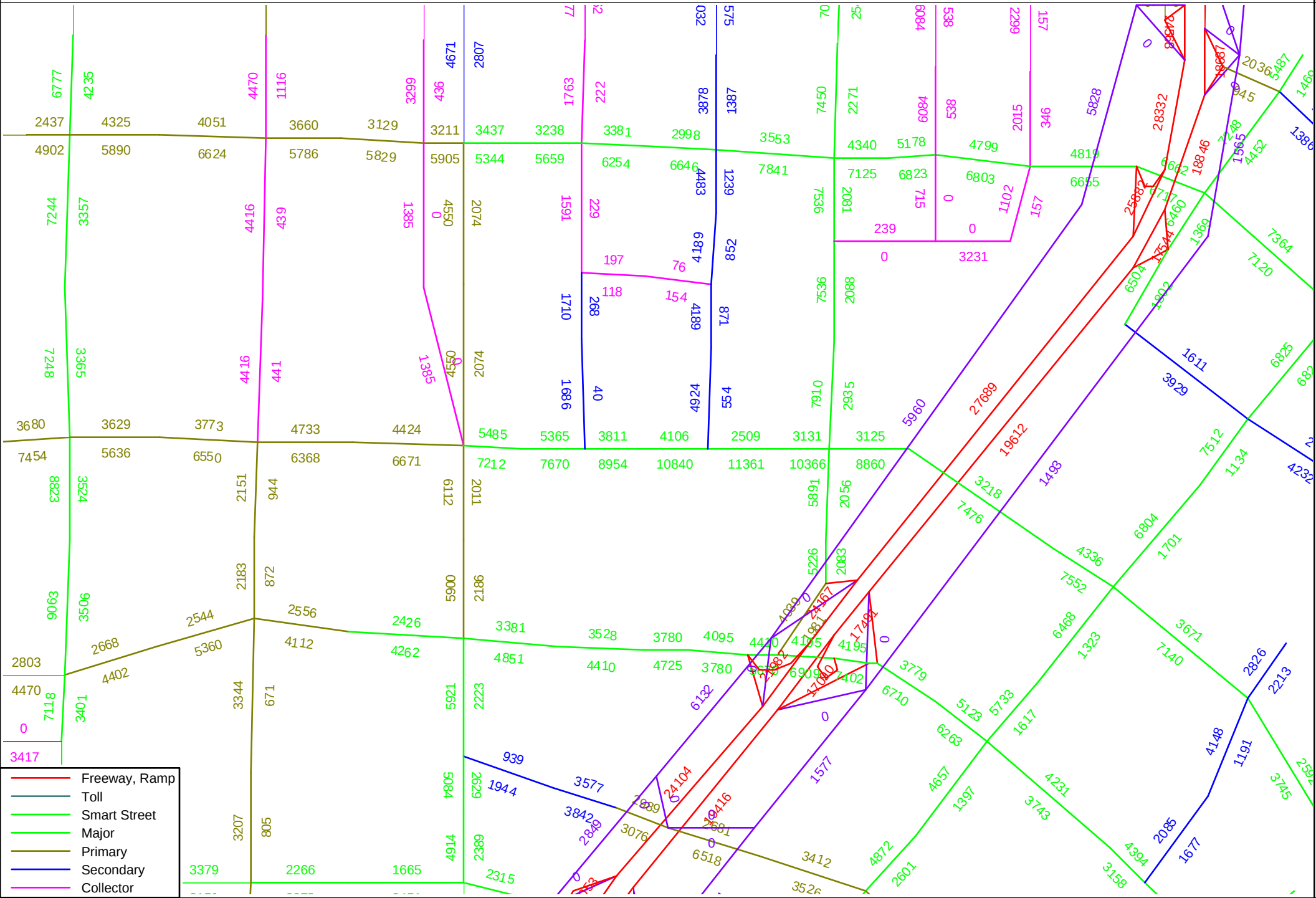
6/18/2012

OCTAM3.4 - 2035 With Project
AM Peak Period



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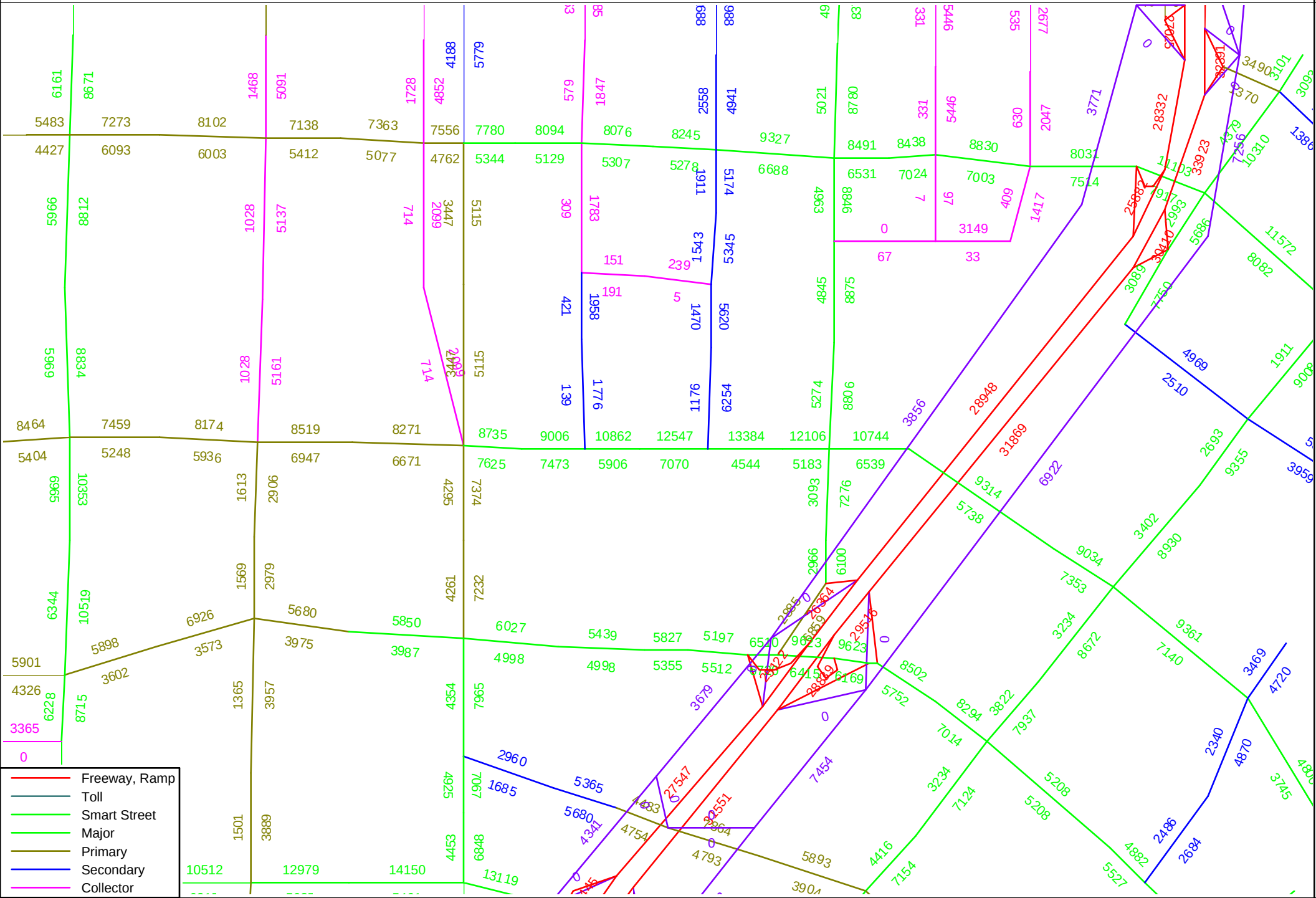
6/18/2012

OCTAM3.4 - 2035 With Project

PM Peak Period



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6/18/2012

B. TRAFFIC COUNT DATA

TRAFFIC COUNT DATA

COUNTS RECEIVED FROM THE CITY OF SANTA ANA

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: EDINGER AVENUE

File Name : H1204003
Site Code : 00005163
Start Date : 4/17/2012

Groups Printed- Turning Movements

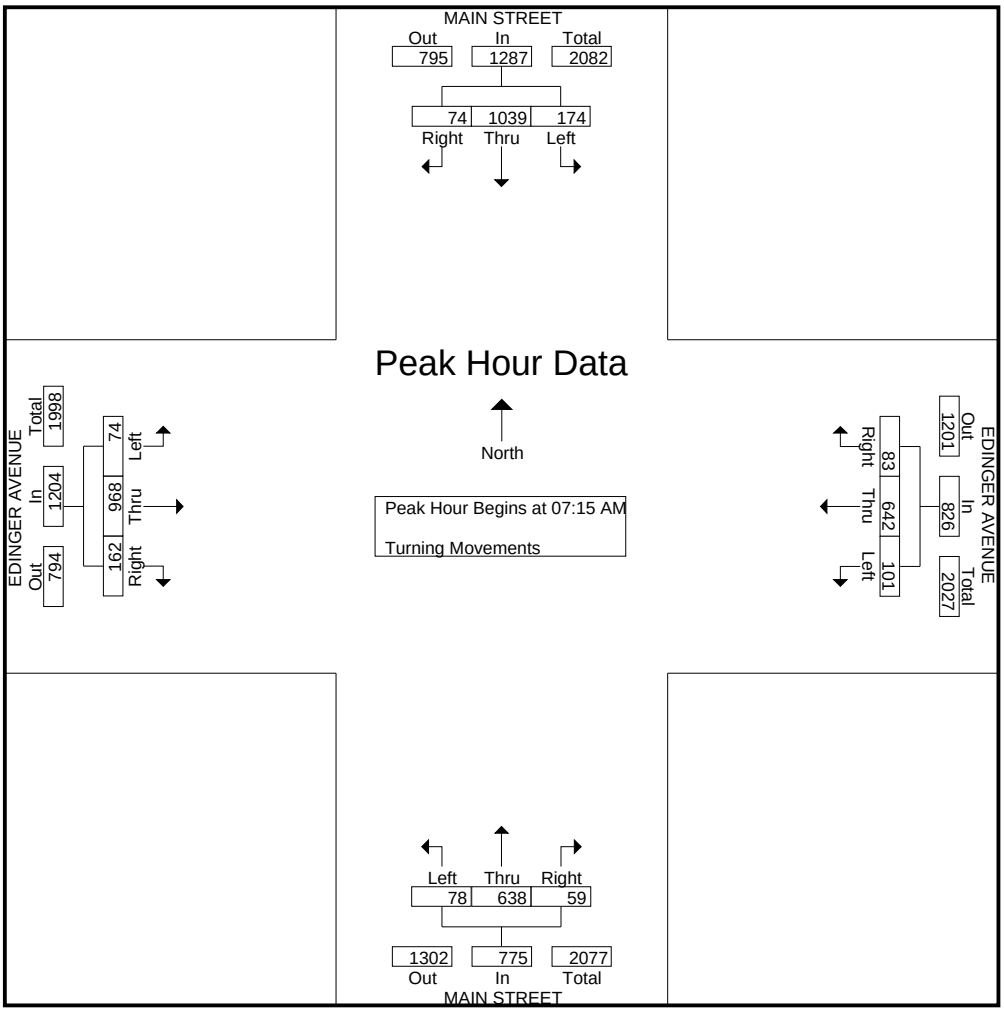
	MAIN STREET Southbound			EDINGER AVENUE Westbound			MAIN STREET Northbound			EDINGER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	16	171	20	10	172	18	18	93	21	26	223	15	803
07:15 AM	20	249	36	18	172	19	13	145	24	45	245	14	1000
07:30 AM	12	289	50	22	166	24	18	157	14	44	240	19	1055
07:45 AM	26	242	46	26	141	34	13	167	22	27	247	19	1010
Total	74	951	152	76	651	95	62	562	81	142	955	67	3868
08:00 AM	16	259	42	17	163	24	15	169	18	46	236	22	1027
08:15 AM	20	226	36	14	145	32	23	125	17	26	191	22	877
08:30 AM	26	223	23	11	238	27	19	133	10	29	214	11	964
08:45 AM	12	201	21	11	188	20	38	127	19	23	204	35	899
Total	74	909	122	53	734	103	95	554	64	124	845	90	3767
*** BREAK ***													
04:00 PM	19	152	20	50	298	32	22	239	44	14	96	36	1022
04:15 PM	19	138	16	27	275	22	16	243	28	16	89	35	924
04:30 PM	19	127	32	26	296	28	17	277	37	10	89	34	992
04:45 PM	18	158	17	14	317	25	13	269	46	11	80	32	1000
Total	75	575	85	117	1186	107	68	1028	155	51	354	137	3938
05:00 PM	34	168	25	19	328	32	15	273	30	17	100	32	1073
05:15 PM	26	184	31	31	353	26	16	287	33	19	101	26	1133
05:30 PM	26	173	27	23	333	21	29	229	25	33	112	26	1057
05:45 PM	30	157	22	15	326	23	21	289	40	23	118	36	1100
Total	116	682	105	88	1340	102	81	1078	128	92	431	120	4363
Grand Total	339	3117	464	334	3911	407	306	3222	428	409	2585	414	15936
Apprch %	8.6	79.5	11.8	7.2	84.1	8.7	7.7	81.4	10.8	12	75.9	12.1	
Total %	2.1	19.6	2.9	2.1	24.5	2.6	1.9	20.2	2.7	2.6	16.2	2.6	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: EDINGER AVENUE

File Name : H1204003
Site Code : 00005163
Start Date : 4/17/2012

	MAIN STREET Southbound				EDINGER AVENUE Westbound				MAIN STREET Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	20	249	36	305	18	**172**	19	209	13	145	**24**	182	45	245	14	**304**	1000
07:30 AM	12	**289**	**50**	**351**	22	166	24	**212**	**18**	157	14	189	44	240	19	303	**1055**
07:45 AM	**26**	242	46	314	**26**	141	**34**	201	13	167	22	**202**	27	**247**	19	293	1010
08:00 AM	16	259	42	317	17	163	24	204	15	**169**	18	202	**46**	236	**22**	304	1027
Total Volume	74	1039	174	1287	83	642	101	826	59	638	78	775	162	968	74	1204	4092
% App. Total	5.7	80.7	13.5		10	77.7	12.2		7.6	82.3	10.1		13.5	80.4	6.1		
PHF	.712	.899	.870	.917	.798	.933	.743	.974	.819	.944	.813	.959	.880	.980	.841	.990	.970

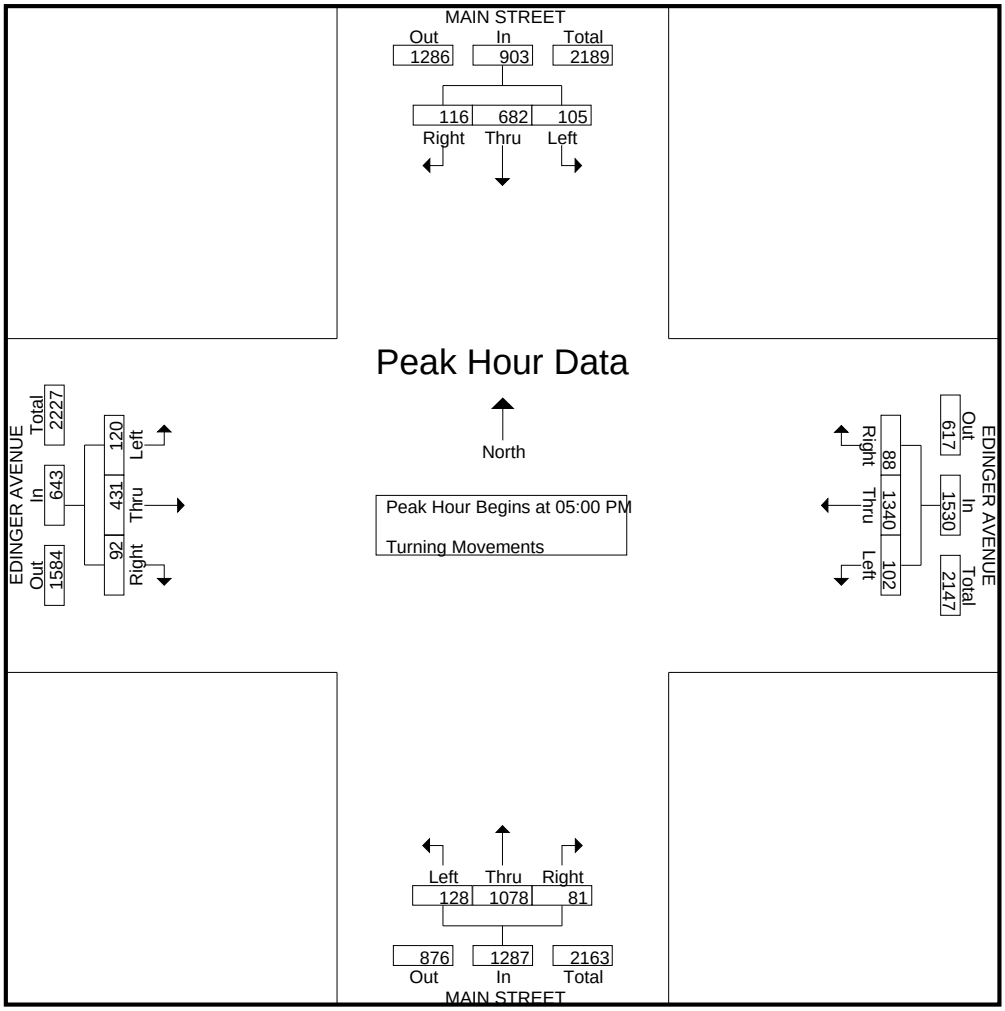


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: EDINGER AVENUE

File Name : H1204003
Site Code : 00005163
Start Date : 4/17/2012
Page No : 3

	MAIN STREET Southbound				EDINGER AVENUE Westbound				MAIN STREET Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**34**	168	25	227	19	328	**32**	379	15	273	30	318	17	100	32	149	1073
05:15 PM	26	**184**	**31**	**241**	**31**	**353**	26	**410**	16	287	33	336	19	101	26	146	**1133**
05:30 PM	26	173	27	226	23	333	21	377	**29**	229	25	283	**33**	112	26	171	1057
05:45 PM	30	157	22	209	15	326	23	364	21	**289**	**40**	**350**	23	**118**	**36**	**177**	1100
Total Volume	116	682	105	903	88	1340	102	1530	81	1078	128	1287	92	431	120	643	4363
% App. Total	12.8	75.5	11.6		5.8	87.6	6.7		6.3	83.8	9.9		14.3	67	18.7		
PHF	.853	.927	.847	.937	.710	.949	.797	.933	.698	.933	.800	.919	.697	.913	.833	.908	.963



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1204004
Site Code : 00005061
Start Date : 4/17/2012

Groups Printed- Turning Movements

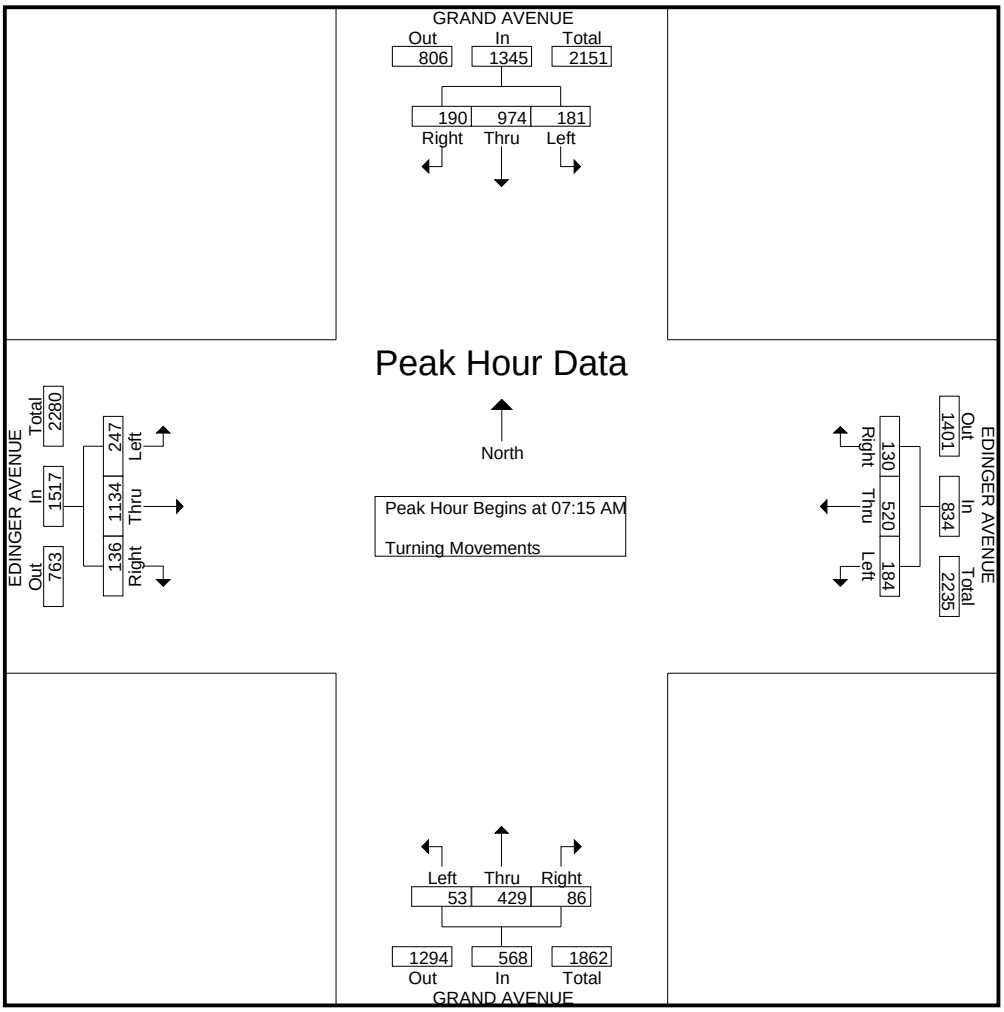
	GRAND AVENUE Southbound			EDINGER AVENUE Westbound			GRAND AVENUE Northbound			EDINGER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	39	245	35	22	129	35	21	76	21	33	121	64	841
07:15 AM	44	255	43	23	108	37	26	84	10	32	277	53	992
07:30 AM	41	218	38	31	138	48	21	116	12	34	287	66	1050
07:45 AM	62	248	52	39	147	44	19	127	11	33	284	76	1142
Total	186	966	168	115	522	164	87	403	54	132	969	259	4025
08:00 AM	43	253	48	37	127	55	20	102	20	37	286	52	1080
08:15 AM	43	257	44	35	129	29	26	104	12	35	226	36	976
08:30 AM	56	228	27	34	184	22	22	84	13	26	243	39	978
08:45 AM	34	269	57	23	153	32	26	98	16	36	218	38	1000
Total	176	1007	176	129	593	138	94	388	61	134	973	165	4034
*** BREAK ***													
04:00 PM	53	107	28	34	275	30	37	246	70	13	156	47	1096
04:15 PM	40	96	25	36	282	28	44	245	40	12	181	51	1080
04:30 PM	55	107	35	38	243	36	49	246	50	10	183	44	1096
04:45 PM	49	91	41	32	275	29	52	269	50	14	208	44	1154
Total	197	401	129	140	1075	123	182	1006	210	49	728	186	4426
05:00 PM	53	93	41	30	248	25	45	278	66	39	150	37	1105
05:15 PM	54	117	47	37	296	18	35	317	65	16	209	47	1258
05:30 PM	54	104	30	30	291	31	51	343	55	20	180	36	1225
05:45 PM	49	88	21	44	258	26	35	272	41	8	169	48	1059
Total	210	402	139	141	1093	100	166	1210	227	83	708	168	4647
Grand Total	769	2776	612	525	3283	525	529	3007	552	398	3378	778	17132
Apprch %	18.5	66.8	14.7	12.1	75.8	12.1	12.9	73.6	13.5	8.7	74.2	17.1	
Total %	4.5	16.2	3.6	3.1	19.2	3.1	3.1	17.6	3.2	2.3	19.7	4.5	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1204004
Site Code : 00005061
Start Date : 4/17/2012

	GRAND AVENUE Southbound				EDINGER AVENUE Westbound				GRAND AVENUE Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	44	**255**	43	342	23	108	37	168	**26**	84	10	120	32	277	53	362	992
07:30 AM	41	218	38	297	31	138	48	217	21	116	12	149	34	**287**	66	387	1050
07:45 AM	**62**	248	**52**	**362**	**39**	**147**	44	**230**	19	**127**	11	**157**	33	284	**76**	**393**	**1142**
08:00 AM	43	253	48	344	37	127	**55**	219	20	102	**20**	142	**37**	286	52	375	1080
Total Volume	190	974	181	1345	130	520	184	834	86	429	53	568	136	1134	247	1517	4264
% App. Total	14.1	72.4	13.5		15.6	62.4	22.1		15.1	75.5	9.3		9	74.8	16.3		
PHF	.766	.955	.870	.929	.833	.884	.836	.907	.827	.844	.663	.904	.919	.988	.813	.965	.933

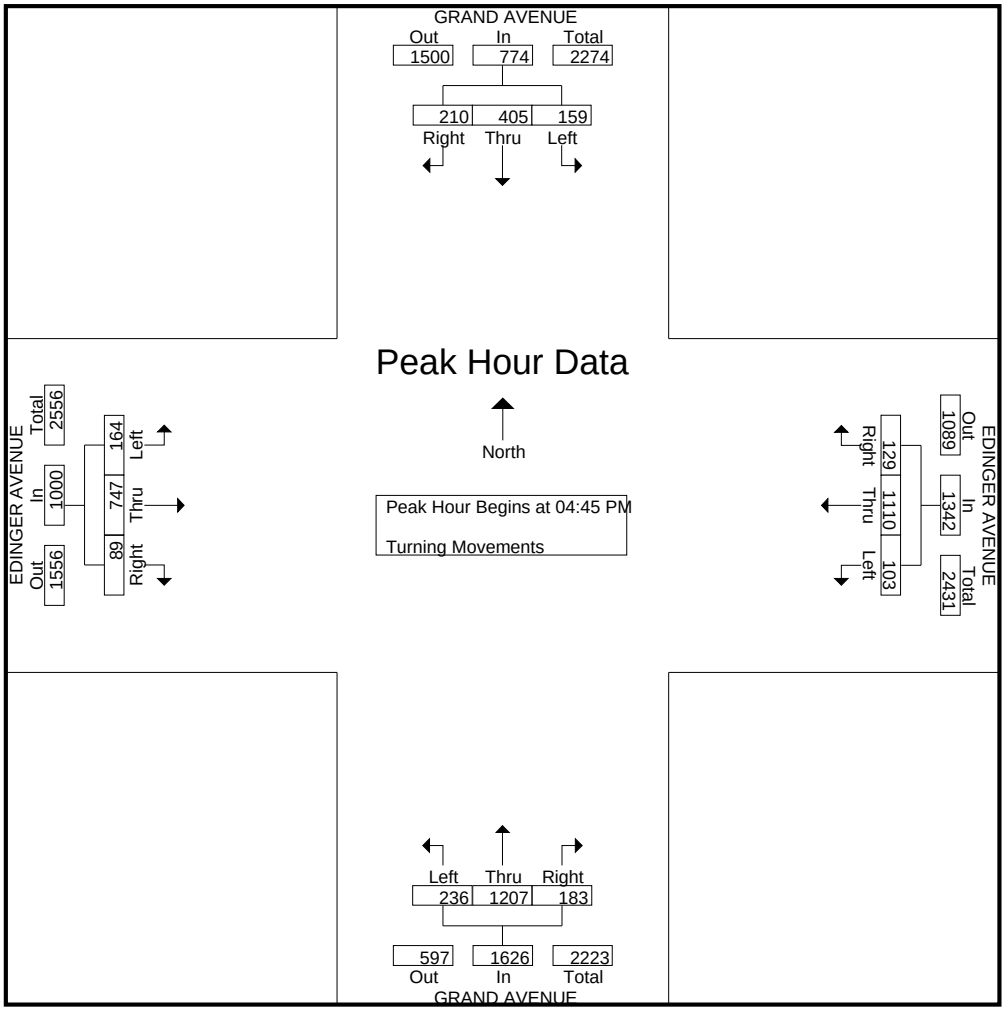


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1204004
Site Code : 00005061
Start Date : 4/17/2012
Page No : 3

	GRAND AVENUE Southbound				EDINGER AVENUE Westbound				GRAND AVENUE Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	49	91	41	181	32	275	29	336	**52**	269	50	371	14	208	44	266	1154
05:00 PM	53	93	41	187	30	248	25	303	45	278	**66**	389	**39**	150	37	226	1105
05:15 PM	**54**	**117**	**47**	**218**	**37**	**296**	18	351	35	317	65	417	16	**209**	**47**	**272**	**1258**
05:30 PM	54	104	30	188	30	291	**31**	**352**	51	**343**	55	**449**	20	180	36	236	1225
Total Volume	210	405	159	774	129	1110	103	1342	183	1207	236	1626	89	747	164	1000	4742
% App. Total	27.1	52.3	20.5		9.6	82.7	7.7		11.3	74.2	14.5		8.9	74.7	16.4		
PHF	.972	.865	.846	.888	.872	.938	.831	.953	.880	.880	.894	.905	.571	.894	.872	.919	.942



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: FLOWER STREET
E-W Direction: WARNER AVENUE

File Name : H1204005
Site Code : 00005163
Start Date : 4/18/2012

Groups Printed- Turning Movements

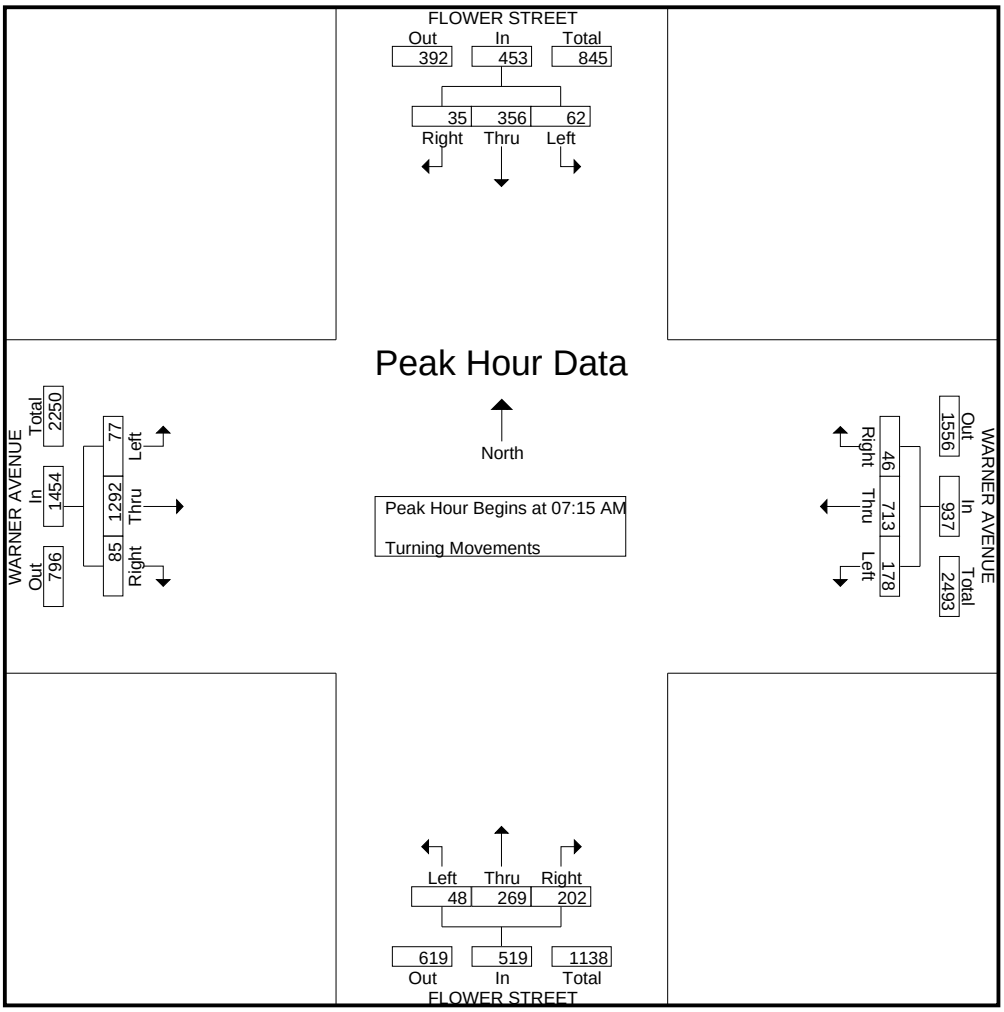
	FLOWER STREET Southbound			WARNER AVENUE Westbound			FLOWER STREET Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	9	70	8	8	123	16	13	31	5	11	199	9	502
07:15 AM	9	103	17	13	148	43	33	53	8	27	256	17	727
07:30 AM	8	121	7	16	188	61	68	79	13	36	294	21	912
07:45 AM	7	64	16	7	212	42	78	97	18	14	393	27	975
Total	33	358	48	44	671	162	192	260	44	88	1142	74	3116
08:00 AM	11	68	22	10	165	32	23	40	9	8	349	12	749
08:15 AM	13	68	9	5	119	7	21	32	4	12	234	9	533
08:30 AM	13	44	16	11	147	12	22	32	10	8	225	10	550
08:45 AM	17	62	20	5	127	9	18	28	6	13	220	6	531
Total	54	242	67	31	558	60	84	132	29	41	1028	37	2363
*** BREAK ***													
04:00 PM	15	57	5	21	245	17	37	99	18	23	225	28	790
04:15 PM	24	87	8	24	276	16	45	86	17	16	209	22	830
04:30 PM	16	66	6	10	274	23	55	100	19	16	200	26	811
04:45 PM	19	54	12	15	259	12	55	109	22	11	213	24	805
Total	74	264	31	70	1054	68	192	394	76	66	847	100	3236
05:00 PM	16	67	6	18	311	22	63	101	19	14	258	37	932
05:15 PM	19	82	10	20	324	27	85	137	15	5	242	37	1003
05:30 PM	25	73	8	15	315	35	59	125	23	13	256	38	985
05:45 PM	25	98	8	26	275	28	60	102	24	10	234	40	930
Total	85	320	32	79	1225	112	267	465	81	42	990	152	3850
Grand Total	246	1184	178	224	3508	402	735	1251	230	237	4007	363	12565
Apprch %	15.3	73.6	11.1	5.4	84.9	9.7	33.2	56.5	10.4	5.1	87	7.9	
Total %	2	9.4	1.4	1.8	27.9	3.2	5.8	10	1.8	1.9	31.9	2.9	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: FLOWER STREET
E-W Direction: WARNER AVENUE

File Name : H1204005
Site Code : 00005163
Start Date : 4/18/2012

	FLOWER STREET Southbound				WARNER AVENUE Westbound				FLOWER STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	9	103	17	129	13	148	43	204	33	53	8	94	27	256	17	300	727
07:30 AM	8	**121**	7	**136**	**16**	188	**61**	**265**	68	79	13	160	**36**	294	21	351	912
07:45 AM	7	64	16	87	7	**212**	42	261	**78**	**97**	**18**	**193**	14	**393**	**27**	**434**	**975**
08:00 AM	**11**	68	**22**	101	10	165	32	207	23	40	9	72	8	349	12	369	749
Total Volume	35	356	62	453	46	713	178	937	202	269	48	519	85	1292	77	1454	3363
% App. Total	7.7	78.6	13.7		4.9	76.1	19		38.9	51.8	9.2		5.8	88.9	5.3		
PHF	.795	.736	.705	.833	.719	.841	.730	.884	.647	.693	.667	.672	.590	.822	.713	.838	.862

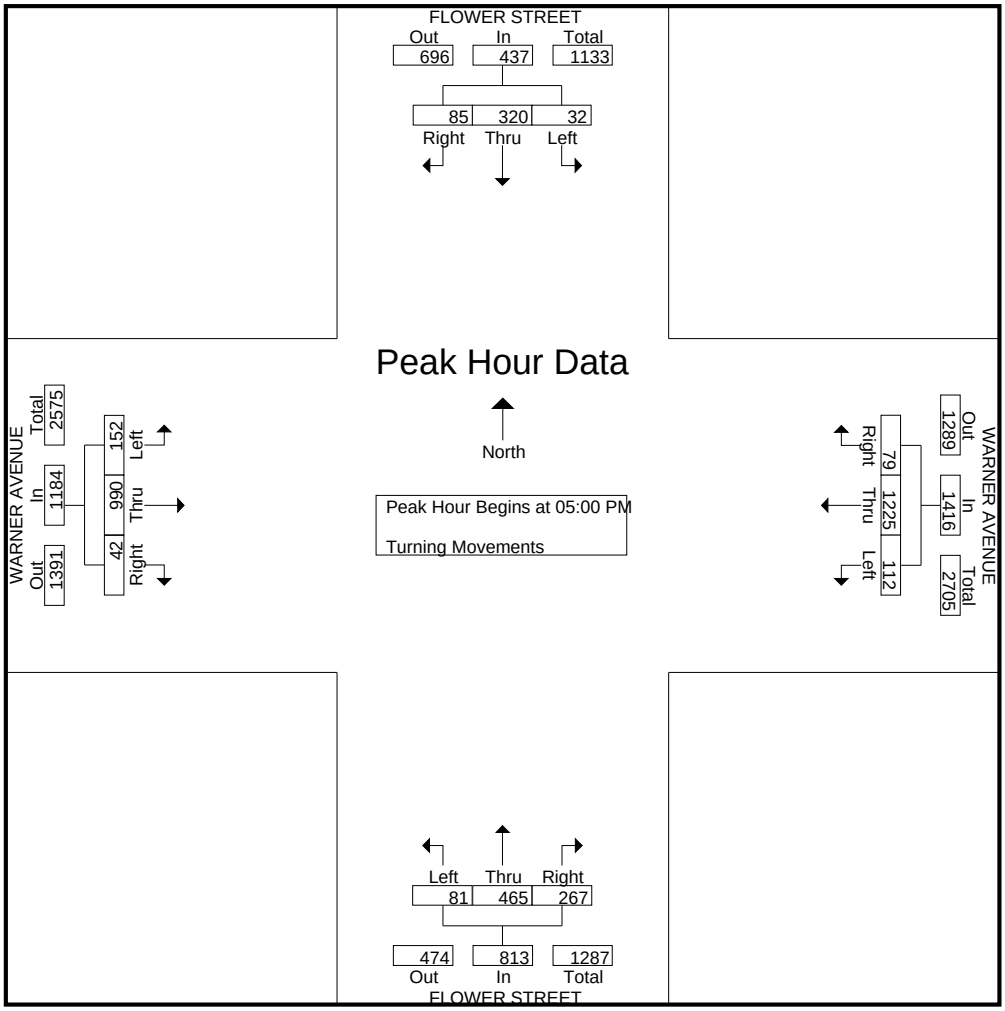


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: FLOWER STREET
E-W Direction: WARNER AVENUE

File Name : H1204005
Site Code : 00005163
Start Date : 4/18/2012
Page No : 3

	FLOWER STREET Southbound				WARNER AVENUE Westbound				FLOWER STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	16	67	6	89	18	311	22	351	63	101	19	183	**14**	**258**	37	**309**	932
05:15 PM	19	82	**10**	111	20	**324**	27	**371**	**85**	**137**	15	**237**	5	242	37	284	**1003**
05:30 PM	**25**	73	8	106	15	315	**35**	365	59	125	23	207	13	256	38	307	985
05:45 PM	25	**98**	8	**131**	**26**	275	28	329	60	102	**24**	186	10	234	**40**	284	930
Total Volume	85	320	32	437	79	1225	112	1416	267	465	81	813	42	990	152	1184	3850
% App. Total	19.5	73.2	7.3		5.6	86.5	7.9		32.8	57.2	10		3.5	83.6	12.8		
PHF	.850	.816	.800	.834	.760	.945	.800	.954	.785	.849	.844	.858	.750	.959	.950	.958	.960



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: WARNER AVENUE

File Name : H1204006
Site Code : 00000554
Start Date : 4/18/2012
Page No : 1

Groups Printed- Turning Movements

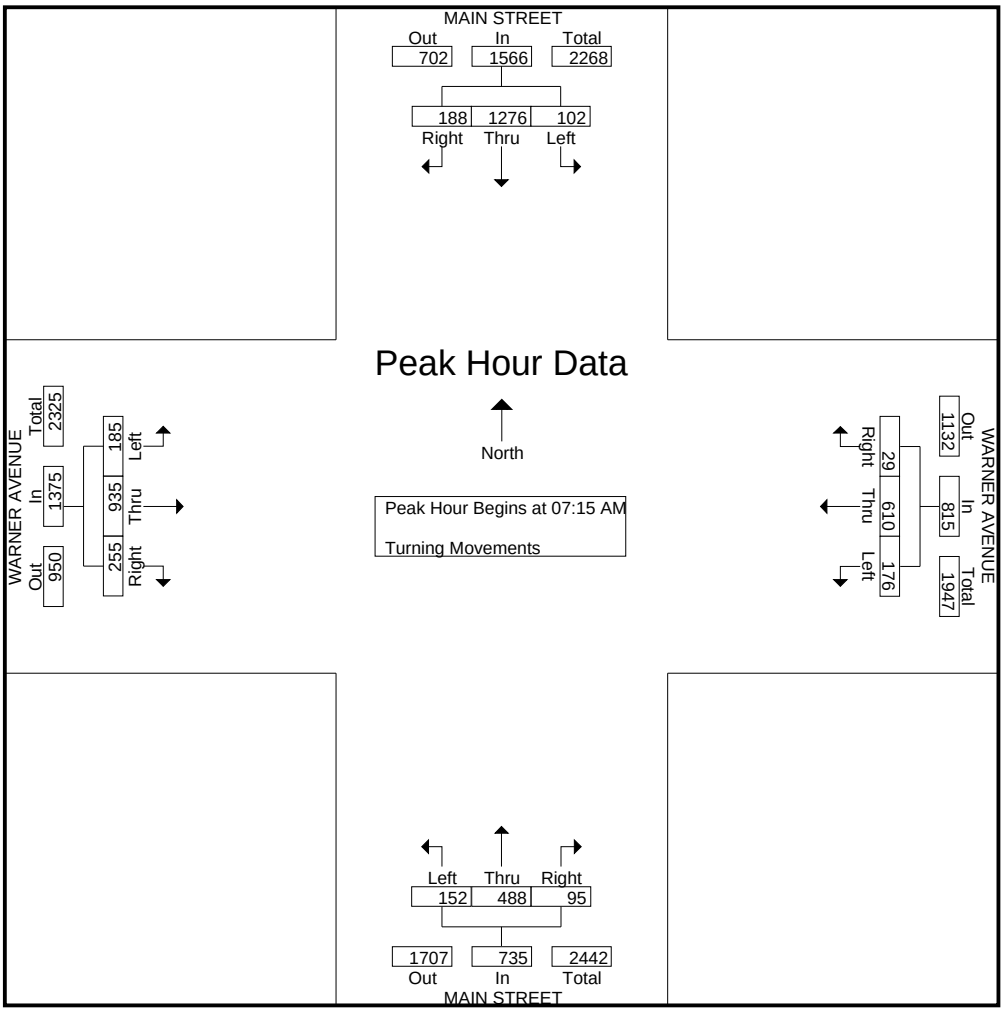
	MAIN STREET Southbound			WARNER AVENUE Westbound			MAIN STREET Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	22	197	29	9	112	45	14	80	21	44	128	18	719
07:15 AM	41	305	23	6	151	45	19	80	31	53	201	33	988
07:30 AM	56	337	32	6	181	46	16	128	33	56	217	47	1155
07:45 AM	50	302	26	8	180	44	30	158	58	71	271	51	1249
Total	169	1141	110	29	624	180	79	446	143	224	817	149	4111
08:00 AM	41	332	21	9	98	41	30	122	30	75	246	54	1099
08:15 AM	19	265	34	13	89	39	27	122	26	63	161	42	900
08:30 AM	34	218	23	13	109	28	25	95	22	45	161	43	816
08:45 AM	33	228	14	16	92	25	19	95	15	54	145	34	770
Total	127	1043	92	51	388	133	101	434	93	237	713	173	3585
*** BREAK ***													
04:00 PM	29	102	30	21	183	28	37	269	63	26	178	53	1019
04:15 PM	34	123	29	45	174	36	43	275	61	27	172	48	1067
04:30 PM	35	149	16	22	177	34	38	292	70	21	179	47	1080
04:45 PM	34	117	22	25	213	28	66	254	38	24	184	43	1048
Total	132	491	97	113	747	126	184	1090	232	98	713	191	4214
05:00 PM	38	121	35	25	214	33	30	290	66	25	209	46	1132
05:15 PM	51	165	47	25	224	40	36	283	70	24	211	45	1221
05:30 PM	52	163	34	27	222	32	41	266	54	28	182	44	1145
05:45 PM	49	175	26	33	194	40	41	289	77	30	209	50	1213
Total	190	624	142	110	854	145	148	1128	267	107	811	185	4711
Grand Total	618	3299	441	303	2613	584	512	3098	735	666	3054	698	16621
Apprch %	14.2	75.7	10.1	8.7	74.7	16.7	11.8	71.3	16.9	15.1	69.1	15.8	
Total %	3.7	19.8	2.7	1.8	15.7	3.5	3.1	18.6	4.4	4	18.4	4.2	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: WARNER AVENUE

File Name : H1204006
Site Code : 00000554
Start Date : 4/18/2012

	MAIN STREET Southbound				WARNER AVENUE Westbound				MAIN STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	41	305	23	369	6	151	45	202	19	80	31	130	53	201	33	287	988
07:30 AM	**56**	**337**	**32**	**425**	6	**181**	**46**	**233**	16	128	33	177	56	217	47	320	1155
07:45 AM	50	302	26	378	8	180	44	232	**30**	**158**	**58**	**246**	71	**271**	51	**393**	**1249**
08:00 AM	41	332	21	394	**9**	98	41	148	30	122	30	182	**75**	246	**54**	375	1099
Total Volume	188	1276	102	1566	29	610	176	815	95	488	152	735	255	935	185	1375	4491
% App. Total	12	81.5	6.5		3.6	74.8	21.6		12.9	66.4	20.7		18.5	68	13.5		
PHF	.839	.947	.797	.921	.806	.843	.957	.874	.792	.772	.655	.747	.850	.863	.856	.875	.899

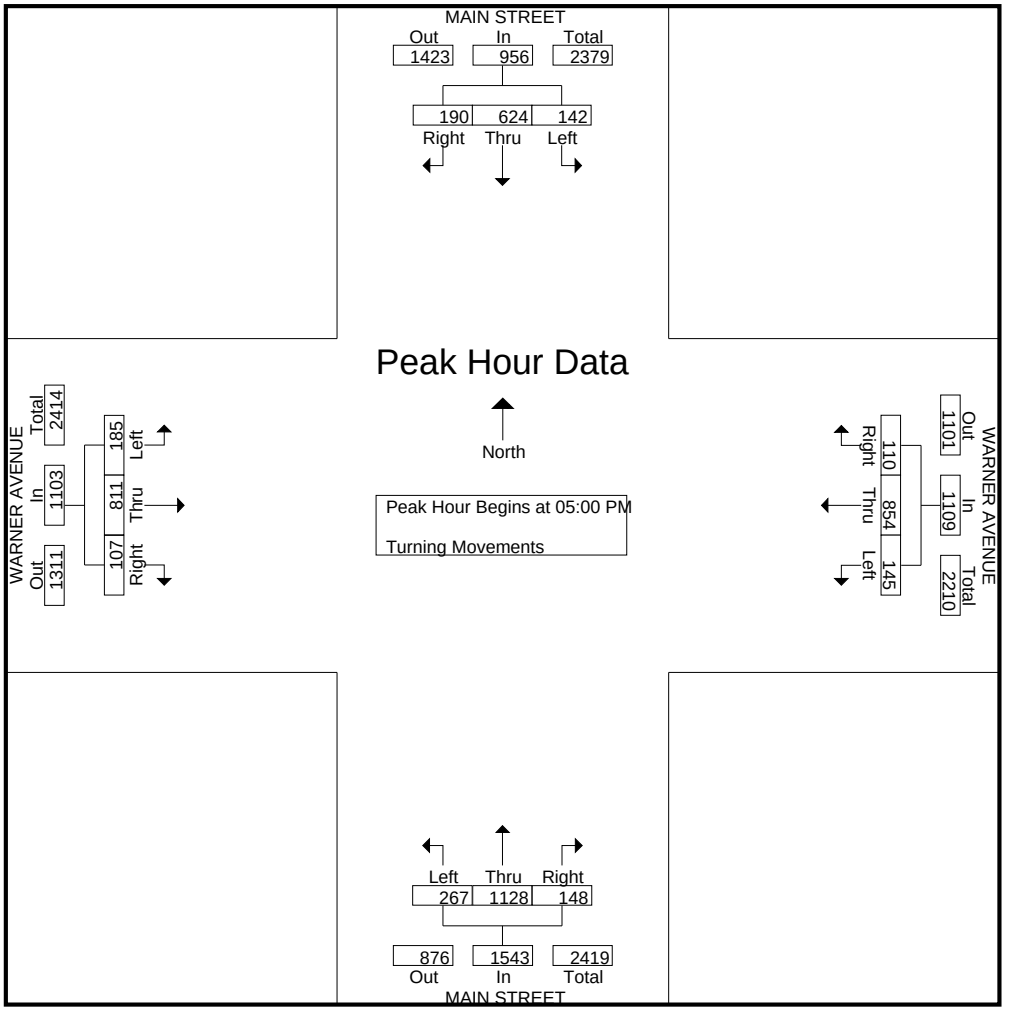


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: WARNER AVENUE

File Name : H1204006
Site Code : 00000554
Start Date : 4/18/2012
Page No : 3

	MAIN STREET Southbound				WARNER AVENUE Westbound				MAIN STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	38	121	35	194	25	214	33	272	30	**290**	66	386	25	209	46	280	1132
05:15 PM	51	165	**47**	**263**	25	**224**	**40**	**289**	36	283	70	389	24	**211**	45	280	**1221**
05:30 PM	**52**	163	34	249	27	222	32	281	**41**	266	54	361	28	182	44	254	1145
05:45 PM	49	**175**	26	250	**33**	194	40	267	41	289	**77**	**407**	**30**	209	**50**	**289**	1213
Total Volume	190	624	142	956	110	854	145	1109	148	1128	267	1543	107	811	185	1103	4711
% App. Total	19.9	65.3	14.9		9.9	77	13.1		9.6	73.1	17.3		9.7	73.5	16.8		
PHF	.913	.891	.755	.909	.833	.953	.906	.959	.902	.972	.867	.948	.892	.961	.925	.954	.965



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: HALLADAY STREET
E-W Direction: WARNER AVENUE

File Name : H1204007
Site Code : 00005163
Start Date : 4/19/2012
Page No : 1

Groups Printed- Turning Movements

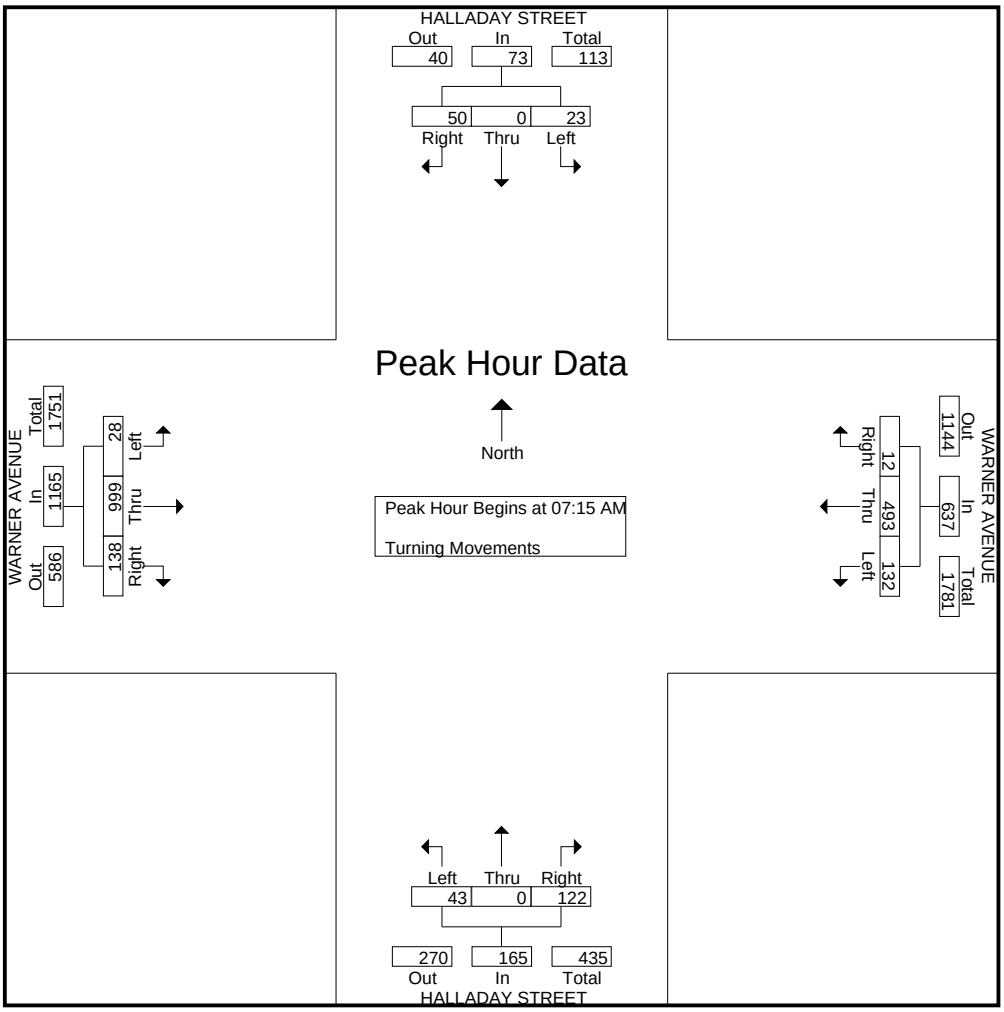
	HALLADAY STREET Southbound			WARNER AVENUE Westbound			HALLADAY STREET Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	10	0	5	2	108	36	15	0	2	29	171	3	381
07:15 AM	14	0	2	1	116	30	21	0	7	28	216	4	439
07:30 AM	19	0	8	3	142	32	36	0	10	30	242	6	528
07:45 AM	14	0	9	4	132	43	41	0	12	42	286	10	593
Total	57	0	24	10	498	141	113	0	31	129	915	23	1941
08:00 AM	3	0	4	4	103	27	24	0	14	38	255	8	480
08:15 AM	8	0	2	2	93	30	20	0	12	20	177	4	368
08:30 AM	8	0	3	3	89	26	17	0	10	26	147	1	330
08:45 AM	6	0	2	2	83	23	14	0	9	15	137	1	292
Total	25	0	11	11	368	106	75	0	45	99	716	14	1470
*** BREAK ***													
04:00 PM	6	0	3	4	231	23	54	0	30	26	159	8	544
04:15 PM	5	0	2	5	216	24	64	0	25	16	181	15	553
04:30 PM	6	0	6	3	286	19	67	0	26	24	170	7	614
04:45 PM	8	0	2	15	229	25	62	0	31	22	180	7	581
Total	25	0	13	27	962	91	247	0	112	88	690	37	2292
05:00 PM	2	0	3	11	238	43	76	0	36	16	174	9	608
05:15 PM	13	0	2	8	235	36	71	0	31	16	211	4	627
05:30 PM	7	0	2	11	220	29	91	0	33	22	197	8	620
05:45 PM	17	0	3	5	207	26	66	0	21	22	155	13	535
Total	39	0	10	35	900	134	304	0	121	76	737	34	2390
Grand Total	146	0	58	83	2728	472	739	0	309	392	3058	108	8093
Apprch %	71.6	0	28.4	2.5	83.1	14.4	70.5	0	29.5	11	85.9	3	
Total %	1.8	0	0.7	1	33.7	5.8	9.1	0	3.8	4.8	37.8	1.3	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: HALLADAY STREET
E-W Direction: WARNER AVENUE

File Name : H1204007
Site Code : 00005163
Start Date : 4/19/2012

	HALLADAY STREET Southbound				WARNER AVENUE Westbound				HALLADAY STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	14	0	2	16	1	116	30	147	21	0	7	28	28	216	4	248	439
07:30 AM	**19**	0	8	**27**	3	**142**	32	177	36	0	10	46	30	242	6	278	528
07:45 AM	14	0	**9**	23	**4**	132	**43**	**179**	**41**	0	12	**53**	**42**	**286**	**10**	**338**	**593**
08:00 AM	3	0	4	7	4	103	27	134	24	0	**14**	38	38	255	8	301	480
Total Volume	50	0	23	73	12	493	132	637	122	0	43	165	138	999	28	1165	2040
% App. Total	68.5	0	31.5		1.9	77.4	20.7		73.9	0	26.1		11.8	85.8	2.4		
PHF	.658	.000	.639	.676	.750	.868	.767	.890	.744	.000	.768	.778	.821	.873	.700	.862	.860

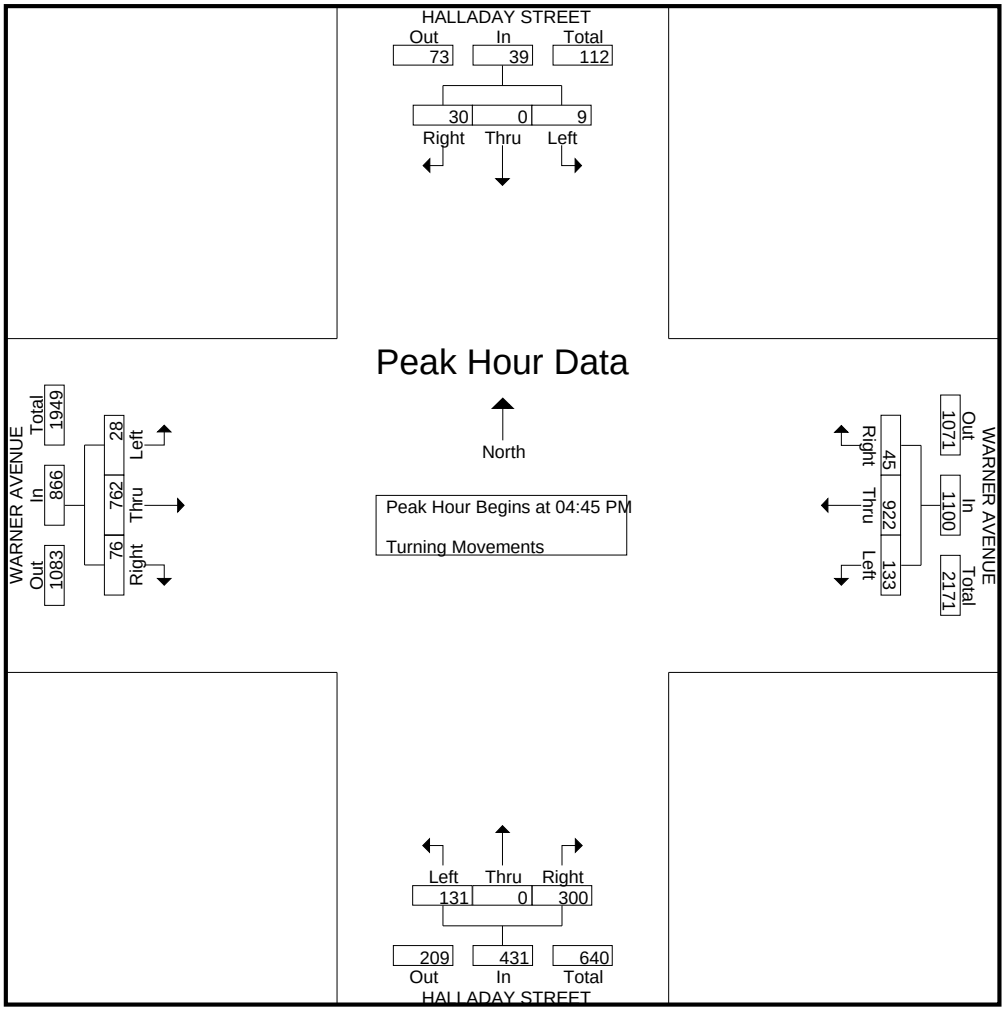


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: HALLADAY STREET
E-W Direction: WARNER AVENUE

File Name : H1204007
Site Code : 00005163
Start Date : 4/19/2012

	HALLADAY STREET Southbound				WARNER AVENUE Westbound				HALLADAY STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	8	0	2	10	**15**	229	25	269	62	0	31	93	**22**	180	7	209	581
05:00 PM	2	0	**3**	5	11	**238**	**43**	**292**	76	0	**36**	112	16	174	**9**	199	608
05:15 PM	**13**	0	2	**15**	8	235	36	279	71	0	31	102	16	**211**	4	**231**	**627**
05:30 PM	7	0	2	9	11	220	29	260	**91**	0	33	**124**	22	197	8	227	620
Total Volume	30	0	9	39	45	922	133	1100	300	0	131	431	76	762	28	866	2436
% App. Total	76.9	0	23.1		4.1	83.8	12.1		69.6	0	30.4		8.8	88	3.2		
PHF	.577	.000	.750	.650	.750	.968	.773	.942	.824	.000	.910	.869	.864	.903	.778	.937	.971



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: STANDARD AVENUE
E-W Direction: WARNER AVENUE

File Name : H1204008
Site Code : 00000553
Start Date : 4/19/2012

Groups Printed- Turning Movements

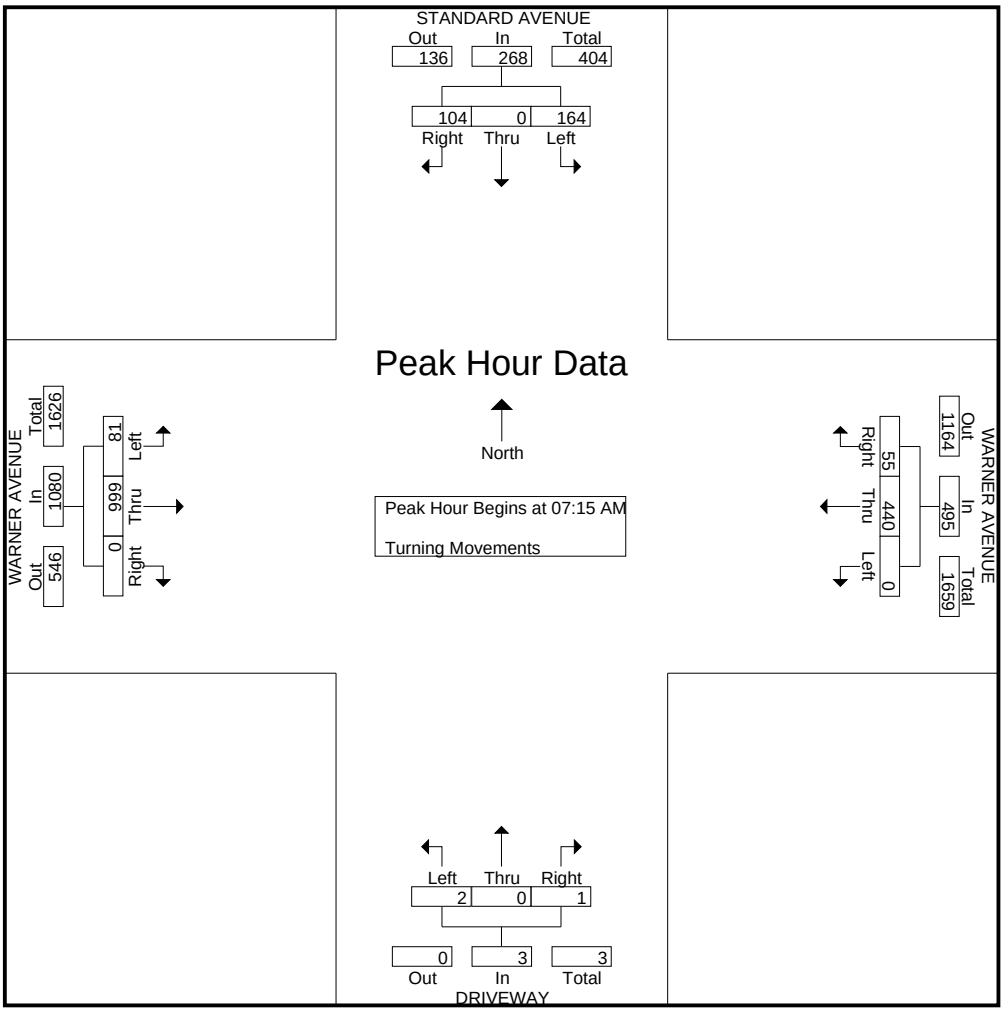
	STANDARD AVENUE Southbound			WARNER AVENUE Westbound			DRIVEWAY Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	18	0	26	13	107	0	1	0	0	0	175	13	353
07:15 AM	24	0	28	8	107	0	0	0	0	0	226	12	405
07:30 AM	26	0	28	11	120	0	0	0	0	0	255	24	464
07:45 AM	36	0	67	14	112	0	1	0	1	0	286	18	535
Total	104	0	149	46	446	0	2	0	1	0	942	67	1757
08:00 AM	18	0	41	22	101	0	0	0	1	0	232	27	442
08:15 AM	15	0	23	8	103	0	0	0	1	0	179	20	349
08:30 AM	15	0	11	11	97	0	2	0	0	0	153	16	305
08:45 AM	12	0	22	10	96	0	1	0	0	0	135	16	292
Total	60	0	97	51	397	0	3	0	2	0	699	79	1388
*** BREAK ***													
04:00 PM	21	0	19	34	234	0	6	1	4	0	171	38	528
04:15 PM	25	0	17	58	205	0	5	1	5	0	169	41	526
04:30 PM	28	0	14	60	274	0	4	0	1	0	171	45	597
04:45 PM	13	0	11	41	246	0	4	0	0	0	188	45	548
Total	87	0	61	193	959	0	19	2	10	0	699	169	2199
05:00 PM	19	0	10	46	284	0	8	0	1	0	179	45	592
05:15 PM	32	0	16	54	260	0	2	1	3	0	203	39	610
05:30 PM	31	0	10	38	227	0	7	1	2	0	207	45	568
05:45 PM	20	0	23	30	193	0	8	1	2	0	179	41	497
Total	102	0	59	168	964	0	25	3	8	0	768	170	2267
Grand Total	353	0	366	458	2766	0	49	5	21	0	3108	485	7611
Apprch %	49.1	0	50.9	14.2	85.8	0	65.3	6.7	28	0	86.5	13.5	
Total %	4.6	0	4.8	6	36.3	0	0.6	0.1	0.3	0	40.8	6.4	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: STANDARD AVENUE
E-W Direction: WARNER AVENUE

File Name : H1204008
Site Code : 00000553
Start Date : 4/19/2012

	STANDARD AVENUE Southbound				WARNER AVENUE Westbound				DRIVEWAY Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	24	0	28	52	8	107	0	115	0	0	0	0	0	226	12	238	405
07:30 AM	26	0	28	54	11	**120**	0	**131**	0	0	0	0	0	255	24	279	464
07:45 AM	**36**	0	**67**	**103**	14	112	0	126	**1**	0	**1**	**2**	0	**286**	18	**304**	**535**
08:00 AM	18	0	41	59	**22**	101	0	123	0	0	1	1	0	232	**27**	259	442
Total Volume	104	0	164	268	55	440	0	495	1	0	2	3	0	999	81	1080	1846
% App. Total	38.8	0	61.2		11.1	88.9	0		33.3	0	66.7		0	92.5	7.5		
PHF	.722	.000	.612	.650	.625	.917	.000	.945	.250	.000	.500	.375	.000	.873	.750	.888	.863

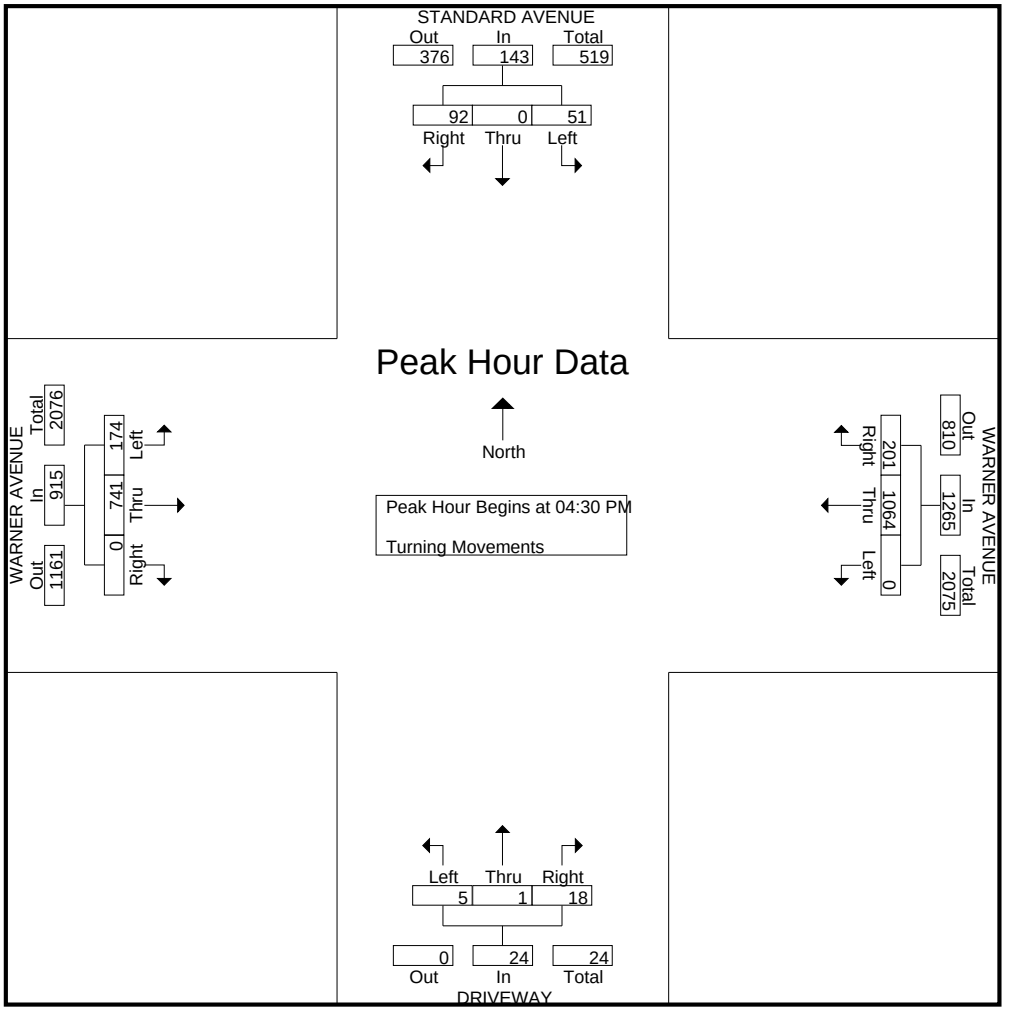


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: STANDARD AVENUE
E-W Direction: WARNER AVENUE

File Name : H1204008
Site Code : 00000553
Start Date : 4/19/2012

	STANDARD AVENUE Southbound				WARNER AVENUE Westbound				DRIVEWAY Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	28	0	14	42	**60**	274	0	**334**	4	0	1	5	0	171	**45**	216	597
04:45 PM	13	0	11	24	41	246	0	287	4	0	0	4	0	188	45	233	548
05:00 PM	19	0	10	29	46	**284**	0	330	**8**	0	1	**9**	0	179	45	224	592
05:15 PM	**32**	0	**16**	**48**	54	260	0	314	2	**1**	**3**	6	0	**203**	39	**242**	**610**
Total Volume	92	0	51	143	201	1064	0	1265	18	1	5	24	0	741	174	915	2347
% App. Total	64.3	0	35.7		15.9	84.1	0		75	4.2	20.8		0	81	19		
PHF	.719	.000	.797	.745	.838	.937	.000	.947	.563	.250	.417	.667	.000	.913	.967	.945	.962



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: WARNER AVENUE

File Name : H1204009
Site Code : 00005061
Start Date : 4/19/2012

Groups Printed- Turning Movements

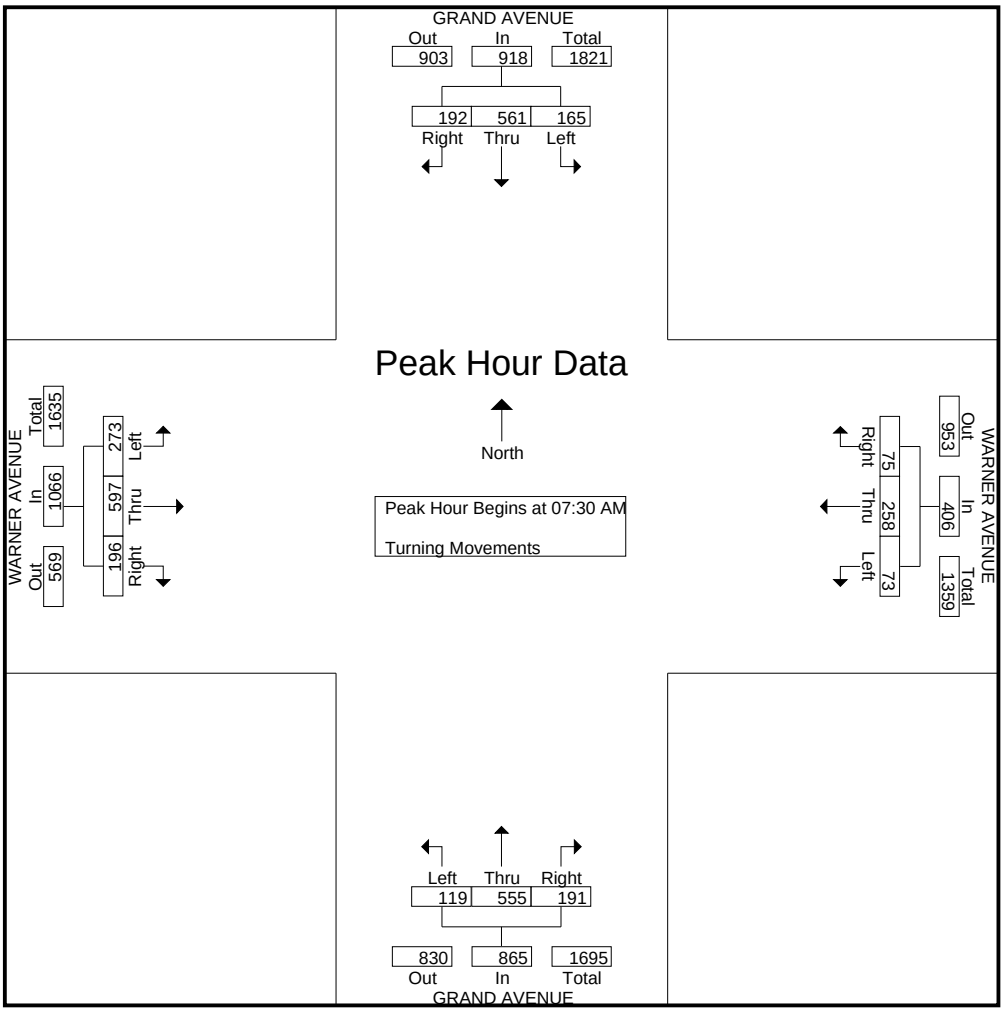
	GRAND AVENUE Southbound			WARNER AVENUE Westbound			GRAND AVENUE Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	29	125	24	14	56	11	34	112	63	50	96	45	659
07:15 AM	38	121	35	14	63	13	46	95	35	38	106	62	666
07:30 AM	48	150	34	15	57	27	49	128	39	52	156	66	821
07:45 AM	41	141	55	21	70	21	45	156	34	55	194	80	913
Total	156	537	148	64	246	72	174	491	171	195	552	253	3059
08:00 AM	53	140	38	20	69	13	59	141	18	57	137	72	817
08:15 AM	50	130	38	19	62	12	38	130	28	32	110	55	704
08:30 AM	43	135	36	25	53	13	30	136	17	39	79	48	654
08:45 AM	54	123	39	7	45	19	39	108	25	36	90	47	632
Total	200	528	151	71	229	57	166	515	88	164	416	222	2807
*** BREAK ***													
04:00 PM	59	105	23	50	122	26	25	126	59	37	84	81	797
04:15 PM	43	121	23	50	165	30	27	165	50	23	87	76	860
04:30 PM	68	127	35	60	182	26	22	140	55	28	88	96	927
04:45 PM	62	109	13	58	178	21	21	154	47	19	75	90	847
Total	232	462	94	218	647	103	95	585	211	107	334	343	3431
05:00 PM	67	114	25	68	199	37	27	173	52	22	93	99	976
05:15 PM	62	131	26	68	196	37	14	207	53	23	103	81	1001
05:30 PM	53	141	31	67	160	26	17	186	42	26	110	89	948
05:45 PM	60	125	21	74	137	17	18	149	32	37	85	70	825
Total	242	511	103	277	692	117	76	715	179	108	391	339	3750
Grand Total	830	2038	496	630	1814	349	511	2306	649	574	1693	1157	13047
Apprch %	24.7	60.6	14.7	22.6	64.9	12.5	14.7	66.5	18.7	16.8	49.4	33.8	
Total %	6.4	15.6	3.8	4.8	13.9	2.7	3.9	17.7	5	4.4	13	8.9	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: WARNER AVENUE

File Name : H1204009
Site Code : 00005061
Start Date : 4/19/2012

	GRAND AVENUE Southbound				WARNER AVENUE Westbound				GRAND AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	48	**150**	34	232	15	57	**27**	99	49	128	**39**	216	52	156	66	274	821
07:45 AM	41	141	**55**	**237**	**21**	**70**	21	**112**	45	**156**	34	**235**	55	**194**	**80**	**329**	**913**
08:00 AM	**53**	140	38	231	20	69	13	102	**59**	141	18	218	**57**	137	72	266	817
08:15 AM	50	130	38	218	19	62	12	93	38	130	28	196	32	110	55	197	704
Total Volume	192	561	165	918	75	258	73	406	191	555	119	865	196	597	273	1066	3255
% App. Total	20.9	61.1	18		18.5	63.5	18		22.1	64.2	13.8		18.4	56	25.6		
PHF	.906	.935	.750	.968	.893	.921	.676	.906	.809	.889	.763	.920	.860	.769	.853	.810	.891

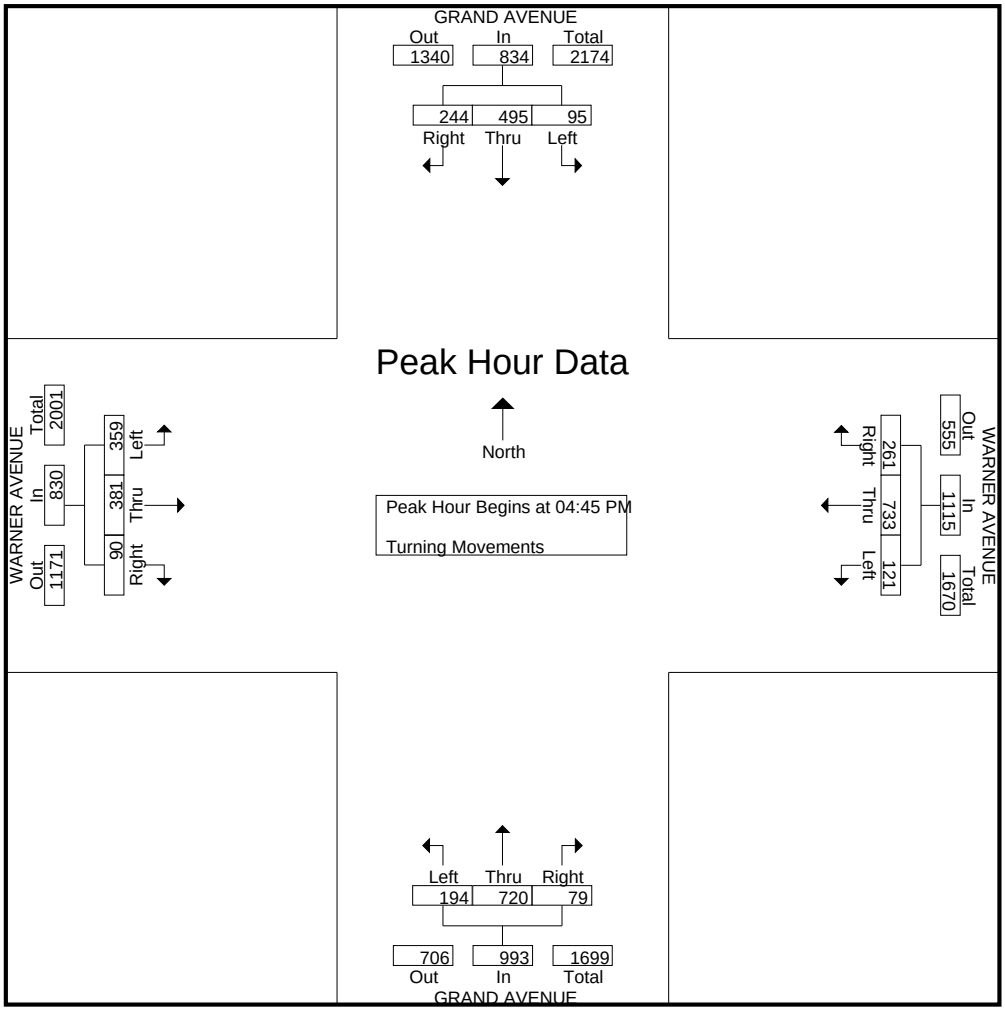


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: WARNER AVENUE

File Name : H1204009
Site Code : 00005061
Start Date : 4/19/2012
Page No : 3

	GRAND AVENUE Southbound				WARNER AVENUE Westbound				GRAND AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	62	109	13	184	58	178	21	257	21	154	47	222	19	75	90	184	847
05:00 PM	**67**	114	25	206	**68**	**199**	**37**	**304**	**27**	173	52	252	22	93	**99**	214	976
05:15 PM	62	131	26	219	68	196	37	301	14	**207**	**53**	**274**	23	103	81	207	**1001**
05:30 PM	53	**141**	**31**	**225**	67	160	26	253	17	186	42	245	**26**	**110**	89	**225**	948
Total Volume	244	495	95	834	261	733	121	1115	79	720	194	993	90	381	359	830	3772
% App. Total	29.3	59.4	11.4		23.4	65.7	10.9		8	72.5	19.5		10.8	45.9	43.3		
PHF	.910	.878	.766	.927	.960	.921	.818	.917	.731	.870	.915	.906	.865	.866	.907	.922	.942



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: WRIGHT STREET
E-W Direction: WARNER AVENUE

File Name : h1204010
Site Code : 00000554
Start Date : 4/19/2012
Page No : 1

Groups Printed- Turning Movements

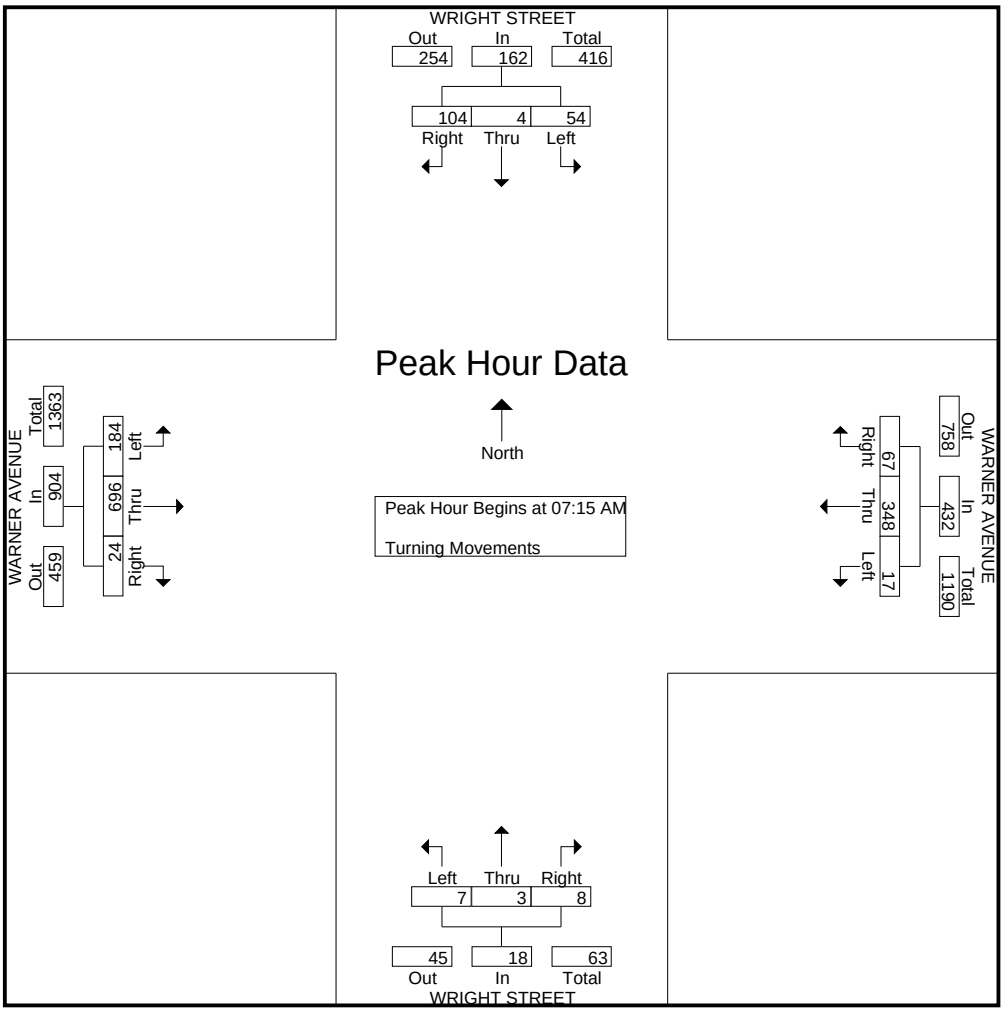
	WRIGHT STREET Southbound			WARNER AVENUE Westbound			WRIGHT STREET Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	19	1	9	7	64	2	0	1	0	4	115	35	257
07:15 AM	21	0	18	13	72	3	1	1	0	2	134	41	306
07:30 AM	34	1	9	15	86	5	3	1	1	5	159	44	363
07:45 AM	32	2	17	11	93	4	2	0	4	10	239	40	454
Total	106	4	53	46	315	14	6	3	5	21	647	160	1380
08:00 AM	17	1	10	28	97	5	2	1	2	7	164	59	393
08:15 AM	22	1	10	20	69	5	2	1	0	2	124	45	301
08:30 AM	15	1	14	22	68	8	2	1	1	6	94	37	269
08:45 AM	18	0	20	18	49	9	1	1	4	7	111	36	274
Total	72	3	54	88	283	27	7	4	7	22	493	177	1237
*** BREAK ***													
04:00 PM	46	1	12	26	160	3	5	3	11	4	90	41	402
04:15 PM	46	4	10	26	179	2	5	1	4	5	95	33	410
04:30 PM	36	2	15	34	223	1	2	2	9	1	118	29	472
04:45 PM	43	1	26	26	201	4	3	4	2	3	81	32	426
Total	171	8	63	112	763	10	15	10	26	13	384	135	1710
05:00 PM	53	0	31	33	247	3	5	2	15	3	112	31	535
05:15 PM	28	0	20	33	233	5	6	5	4	2	130	31	497
05:30 PM	20	1	16	24	215	4	3	0	1	2	125	41	452
05:45 PM	19	0	19	25	217	3	2	0	3	2	127	39	456
Total	120	1	86	115	912	15	16	7	23	9	494	142	1940
Grand Total	469	16	256	361	2273	66	44	24	61	65	2018	614	6267
Apprch %	63.3	2.2	34.5	13.4	84.2	2.4	34.1	18.6	47.3	2.4	74.8	22.8	
Total %	7.5	0.3	4.1	5.8	36.3	1.1	0.7	0.4	1	1	32.2	9.8	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: WRIGHT STREET
E-W Direction: WARNER AVENUE

File Name : h1204010
Site Code : 00000554
Start Date : 4/19/2012

	WRIGHT STREET Southbound				WARNER AVENUE Westbound				WRIGHT STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	21	0	**18**	39	13	72	3	88	1	**1**	0	2	2	134	41	177	306
07:30 AM	**34**	1	9	44	15	86	**5**	106	**3**	1	1	5	5	159	44	208	363
07:45 AM	32	**2**	17	**51**	11	93	4	108	2	0	**4**	**6**	**10**	**239**	40	**289**	**454**
08:00 AM	17	1	10	28	**28**	**97**	5	**130**	2	1	2	5	7	164	**59**	230	393
Total Volume	104	4	54	162	67	348	17	432	8	3	7	18	24	696	184	904	1516
% App. Total	64.2	2.5	33.3		15.5	80.6	3.9		44.4	16.7	38.9		2.7	77	20.4		
PHF	.765	.500	.750	.794	.598	.897	.850	.831	.667	.750	.438	.750	.600	.728	.780	.782	.835

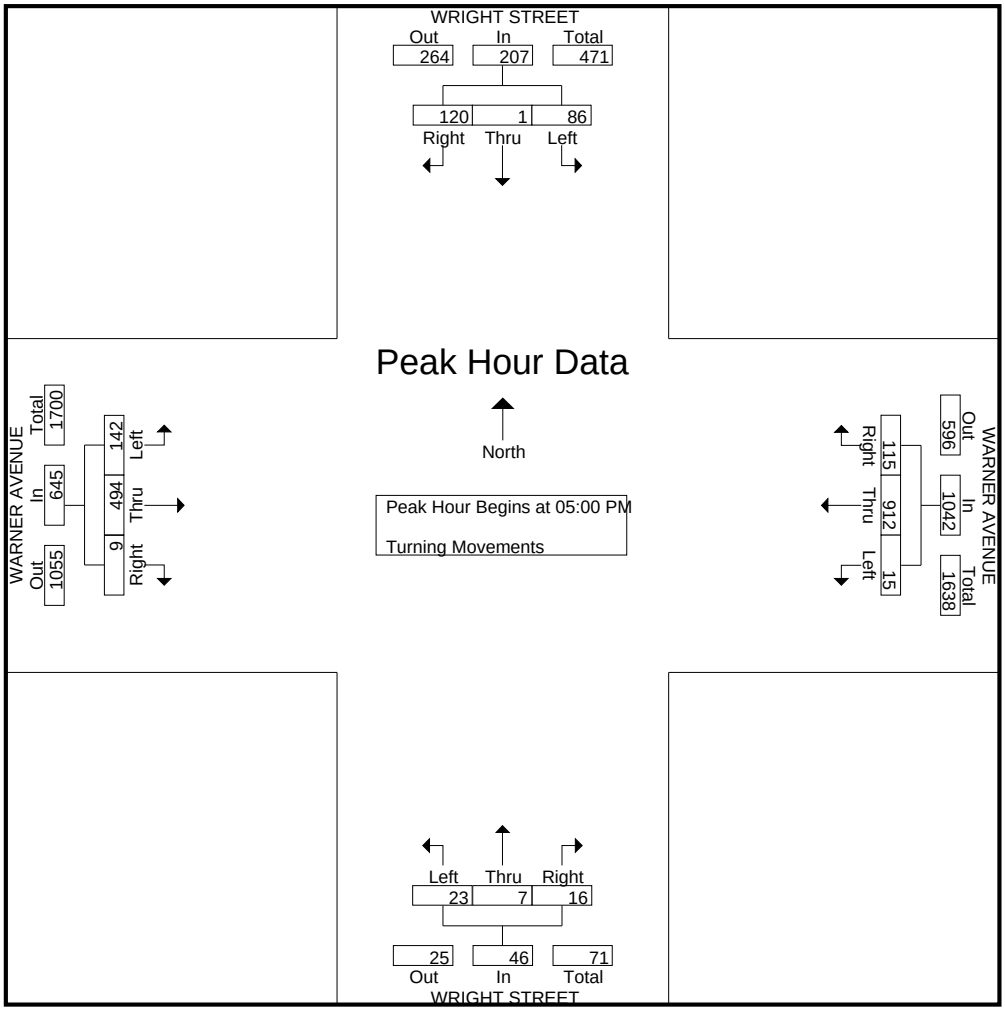


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: WRIGHT STREET
E-W Direction: WARNER AVENUE

File Name : h1204010
Site Code : 00000554
Start Date : 4/19/2012

	WRIGHT STREET Southbound				WARNER AVENUE Westbound				WRIGHT STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**53**	0	**31**	**84**	**33**	**247**	3	**283**	5	2	**15**	**22**	**3**	112	31	146	**535**
05:15 PM	28	0	20	48	33	233	**5**	271	**6**	**5**	4	15	2	**130**	31	163	497
05:30 PM	20	**1**	16	37	24	215	4	243	3	0	1	4	2	125	**41**	**168**	452
05:45 PM	19	0	19	38	25	217	3	245	2	0	3	5	2	127	39	168	456
Total Volume	120	1	86	207	115	912	15	1042	16	7	23	46	9	494	142	645	1940
% App. Total	58	0.5	41.5		11	87.5	1.4		34.8	15.2	50		1.4	76.6	22		
PHF	.566	.250	.694	.616	.871	.923	.750	.920	.667	.350	.383	.523	.750	.950	.866	.960	.907



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: DYER ROAD

File Name : H1204011
Site Code : 00005062
Start Date : 4/18/2012

Groups Printed- Turning Movements

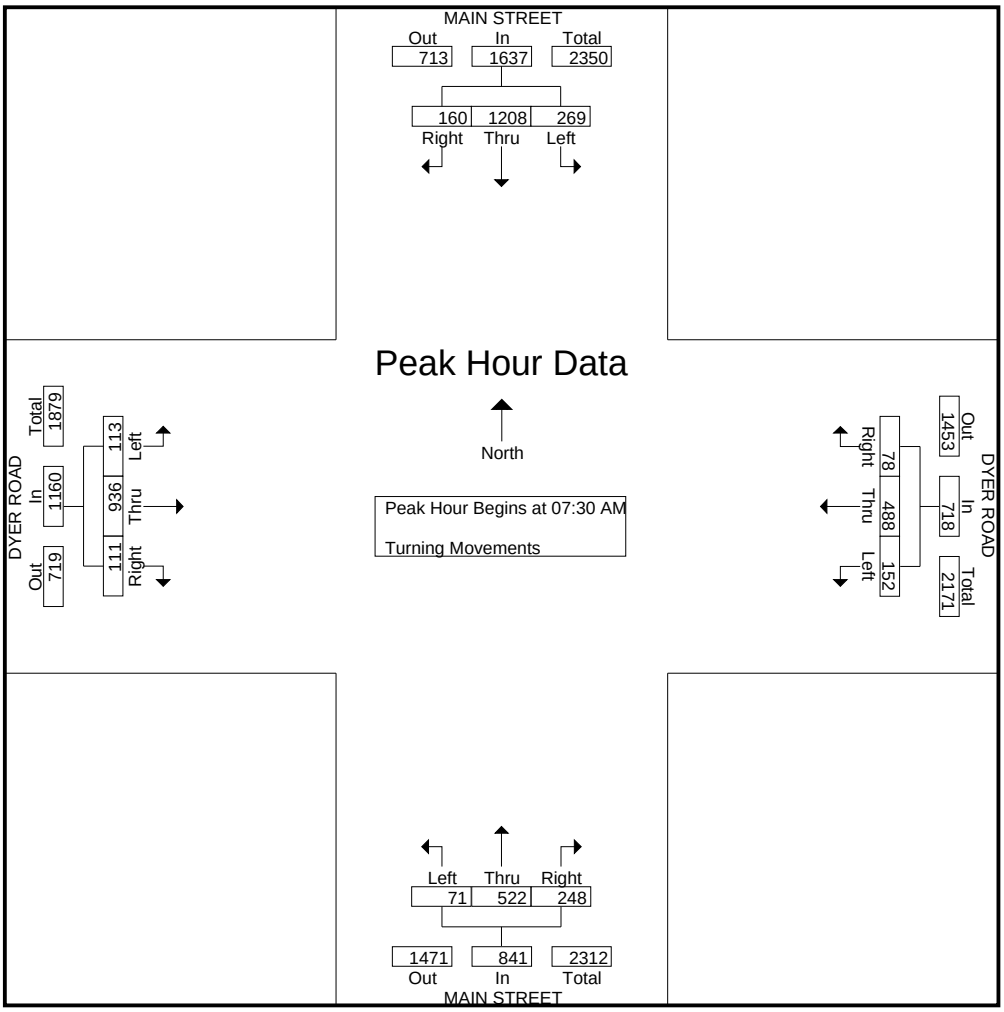
	MAIN STREET Southbound			DYER ROAD Westbound			MAIN STREET Northbound			DYER ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	23	207	47	23	101	16	22	99	19	19	157	14	747
07:15 AM	41	246	56	16	123	30	41	99	14	13	196	20	895
07:30 AM	65	291	58	17	177	36	55	124	19	23	267	26	1158
07:45 AM	48	307	72	20	155	41	76	136	16	38	240	51	1200
Total	177	1051	233	76	556	123	194	458	68	93	860	111	4000
08:00 AM	24	317	74	24	84	37	65	148	22	20	225	15	1055
08:15 AM	23	293	65	17	72	38	52	114	14	30	204	21	943
08:30 AM	13	268	48	18	62	31	42	101	12	32	175	35	837
08:45 AM	19	218	53	26	70	31	31	72	9	24	140	29	722
Total	79	1096	240	85	288	137	190	435	57	106	744	100	3557
*** BREAK ***													
04:00 PM	30	116	36	42	183	36	69	247	39	23	166	31	1018
04:15 PM	33	127	25	33	197	38	95	275	36	16	140	66	1081
04:30 PM	31	139	32	32	219	42	79	264	31	15	163	28	1075
04:45 PM	19	129	21	33	207	58	92	286	43	14	195	34	1131
Total	113	511	114	140	806	174	335	1072	149	68	664	159	4305
05:00 PM	25	117	33	39	219	39	88	327	45	8	140	61	1141
05:15 PM	37	137	25	37	249	48	126	303	47	14	213	37	1273
05:30 PM	25	158	26	33	196	61	132	320	45	16	190	54	1256
05:45 PM	30	187	39	18	204	51	117	292	39	15	158	45	1195
Total	117	599	123	127	868	199	463	1242	176	53	701	197	4865
Grand Total	486	3257	710	428	2518	633	1182	3207	450	320	2969	567	16727
Apprch %	10.9	73.1	15.9	12	70.4	17.7	24.4	66.3	9.3	8.3	77	14.7	
Total %	2.9	19.5	4.2	2.6	15.1	3.8	7.1	19.2	2.7	1.9	17.7	3.4	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: DYER ROAD

File Name : H1204011
Site Code : 00005062
Start Date : 4/18/2012

	MAIN STREET Southbound				DYER ROAD Westbound				MAIN STREET Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**65**	291	58	414	17	**177**	36	**230**	55	124	19	198	23	**267**	26	316	1158
07:45 AM	48	307	72	**427**	20	155	**41**	216	**76**	136	16	228	**38**	240	**51**	**329**	**1200**
08:00 AM	24	**317**	**74**	415	**24**	84	37	145	65	**148**	**22**	**235**	20	225	15	260	1055
08:15 AM	23	293	65	381	17	72	38	127	52	114	14	180	30	204	21	255	943
Total Volume	160	1208	269	1637	78	488	152	718	248	522	71	841	111	936	113	1160	4356
% App. Total	9.8	73.8	16.4		10.9	68	21.2		29.5	62.1	8.4		9.6	80.7	9.7		
PHF	.615	.953	.909	.958	.813	.689	.927	.780	.816	.882	.807	.895	.730	.876	.554	.881	.908

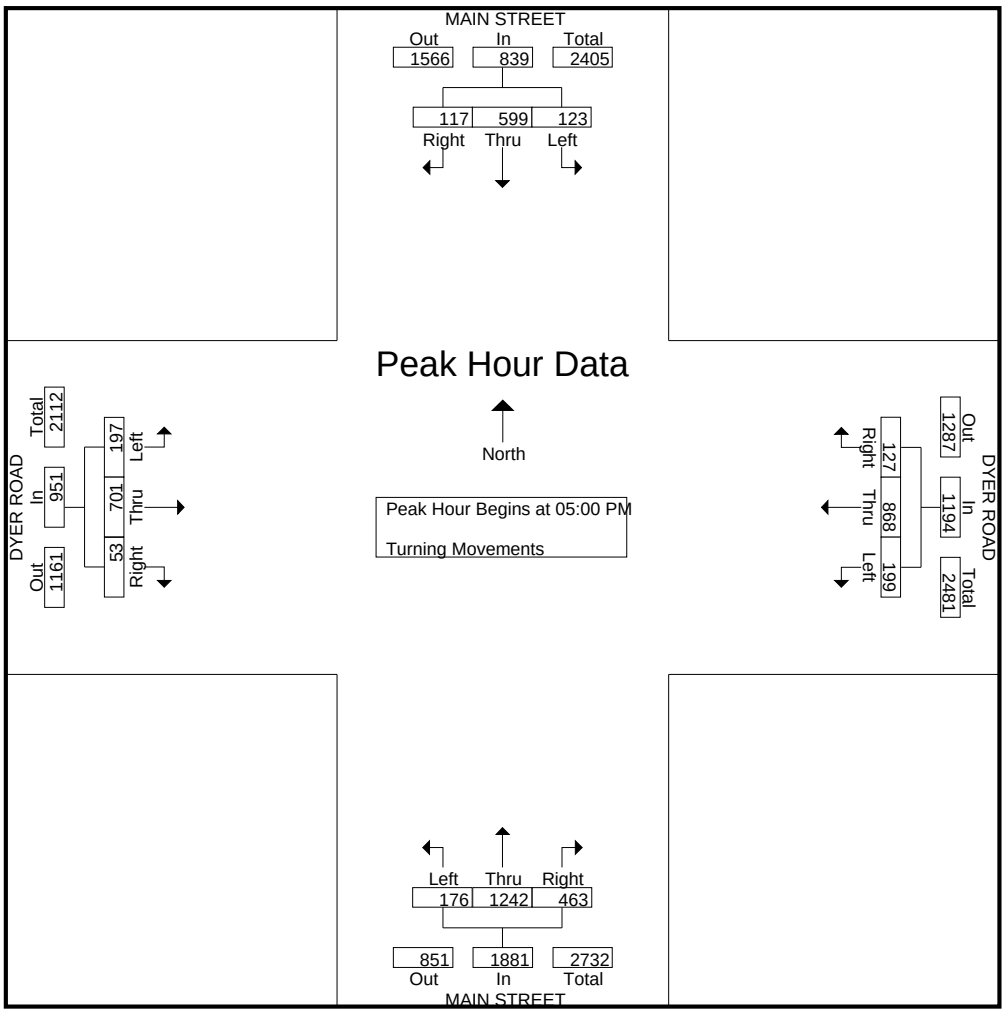


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAIN STREET
E-W Direction: DYER ROAD

File Name : H1204011
Site Code : 00005062
Start Date : 4/18/2012

	MAIN STREET Southbound				DYER ROAD Westbound				MAIN STREET Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	25	117	33	175	**39**	219	39	297	88	**327**	45	460	8	140	**61**	209	1141
05:15 PM	**37**	137	25	199	37	**249**	48	**334**	126	303	**47**	476	14	**213**	37	**264**	**1273**
05:30 PM	25	158	26	209	33	196	**61**	290	**132**	320	45	**497**	**16**	190	54	260	1256
05:45 PM	30	**187**	**39**	**256**	18	204	51	273	117	292	39	448	15	158	45	218	1195
Total Volume	117	599	123	839	127	868	199	1194	463	1242	176	1881	53	701	197	951	4865
% App. Total	13.9	71.4	14.7		10.6	72.7	16.7		24.6	66	9.4		5.6	73.7	20.7		
PHF	.791	.801	.788	.819	.814	.871	.816	.894	.877	.950	.936	.946	.828	.823	.807	.901	.955



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: DYER ROAD

File Name : H1204012
Site Code : 00005062
Start Date : 4/19/2012

Groups Printed- Turning Movements

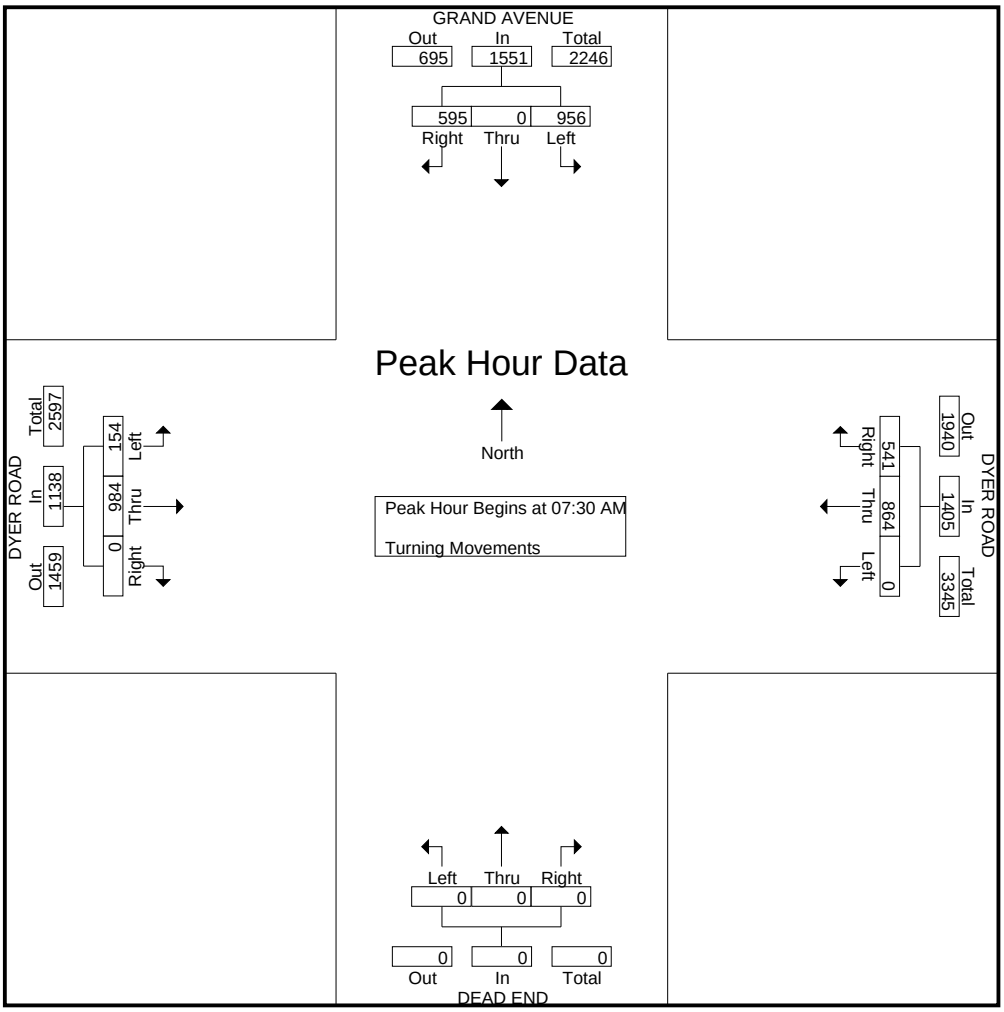
	GRAND AVENUE Southbound			DYER ROAD Westbound			DEAD END Northbound			DYER ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	150	0	256	98	163	0	0	0	0	0	182	15	864
07:15 AM	143	0	235	107	180	0	0	0	0	0	183	27	875
07:30 AM	156	0	237	117	191	0	0	0	0	0	241	34	976
07:45 AM	165	0	246	160	204	0	0	0	0	0	266	54	1095
Total	614	0	974	482	738	0	0	0	0	0	872	130	3810
08:00 AM	138	0	237	141	267	0	0	0	0	0	229	28	1040
08:15 AM	136	0	236	123	202	0	0	0	0	0	248	38	983
08:30 AM	137	0	180	122	212	0	0	0	0	0	162	24	837
08:45 AM	138	0	188	135	200	0	0	0	0	0	211	29	901
Total	549	0	841	521	881	0	0	0	0	0	850	119	3761
*** BREAK ***													
04:00 PM	115	0	117	101	191	0	0	0	0	0	239	34	797
04:15 PM	185	0	121	88	235	0	0	0	0	0	292	82	1003
04:30 PM	146	0	118	90	222	0	0	0	0	0	275	58	909
04:45 PM	155	0	107	89	253	0	0	0	0	0	225	68	897
Total	601	0	463	368	901	0	0	0	0	0	1031	242	3606
05:00 PM	144	0	148	93	249	0	0	0	0	0	276	74	984
05:15 PM	147	0	131	103	274	0	0	0	0	0	323	80	1058
05:30 PM	139	0	136	110	261	0	0	0	0	0	275	76	997
05:45 PM	122	0	108	102	250	0	0	0	0	0	266	63	911
Total	552	0	523	408	1034	0	0	0	0	0	1140	293	3950
Grand Total	2316	0	2801	1779	3554	0	0	0	0	0	3893	784	15127
Apprch %	45.3	0	54.7	33.4	66.6	0	0	0	0	0	83.2	16.8	
Total %	15.3	0	18.5	11.8	23.5	0	0	0	0	0	25.7	5.2	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: DYER ROAD

File Name : H1204012
Site Code : 00005062
Start Date : 4/19/2012

	GRAND AVENUE Southbound				DYER ROAD Westbound				DEAD END Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	156	0	237	393	117	191	0	308	0	0	0	0	0	241	34	275	976
07:45 AM	**165**	0	**246**	**411**	**160**	204	0	364	0	0	0	0	0	**266**	**54**	**320**	**1095**
08:00 AM	138	0	237	375	141	**267**	0	**408**	0	0	0	0	0	229	28	257	1040
08:15 AM	136	0	236	372	123	202	0	325	0	0	0	0	0	248	38	286	983
Total Volume	595	0	956	1551	541	864	0	1405	0	0	0	0	0	984	154	1138	4094
% App. Total	38.4	0	61.6		38.5	61.5	0		0	0	0		0	86.5	13.5		
PHF	.902	.000	.972	.943	.845	.809	.000	.861	.000	.000	.000	.000	.000	.925	.713	.889	.935

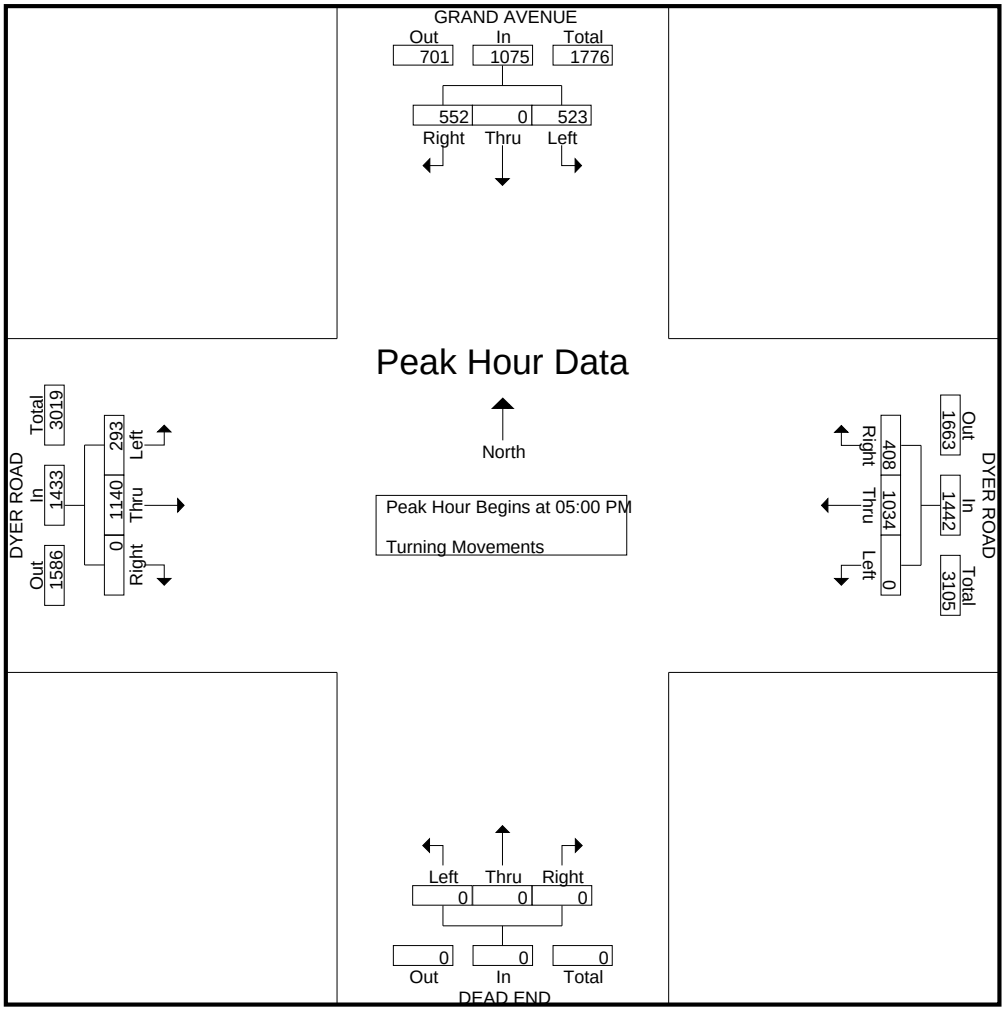


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: GRAND AVENUE
E-W Direction: DYER ROAD

File Name : H1204012
Site Code : 00005062
Start Date : 4/19/2012

	GRAND AVENUE Southbound				DYER ROAD Westbound				DEAD END Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	144	0	**148**	**292**	93	249	0	342	0	0	0	0	0	276	74	350	984
05:15 PM	**147**	0	131	278	103	**274**	0	**377**	0	0	0	0	0	**323**	**80**	**403**	**1058**
05:30 PM	139	0	136	275	**110**	261	0	371	0	0	0	0	0	275	76	351	997
05:45 PM	122	0	108	230	102	250	0	352	0	0	0	0	0	266	63	329	911
Total Volume	552	0	523	1075	408	1034	0	1442	0	0	0	0	0	1140	293	1433	3950
% App. Total	51.3	0	48.7		28.3	71.7	0		0	0	0		0	79.6	20.4		
PHF	.939	.000	.883	.920	.927	.943	.000	.956	.000	.000	.000	.000	.000	.882	.916	.889	.933



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAPLE STREET
E-W Direction: WARNER AVENUE

File Name : H1204013
Site Code : 00005061
Start Date : 4/18/2012
Page No : 1

Groups Printed- Turning Movements

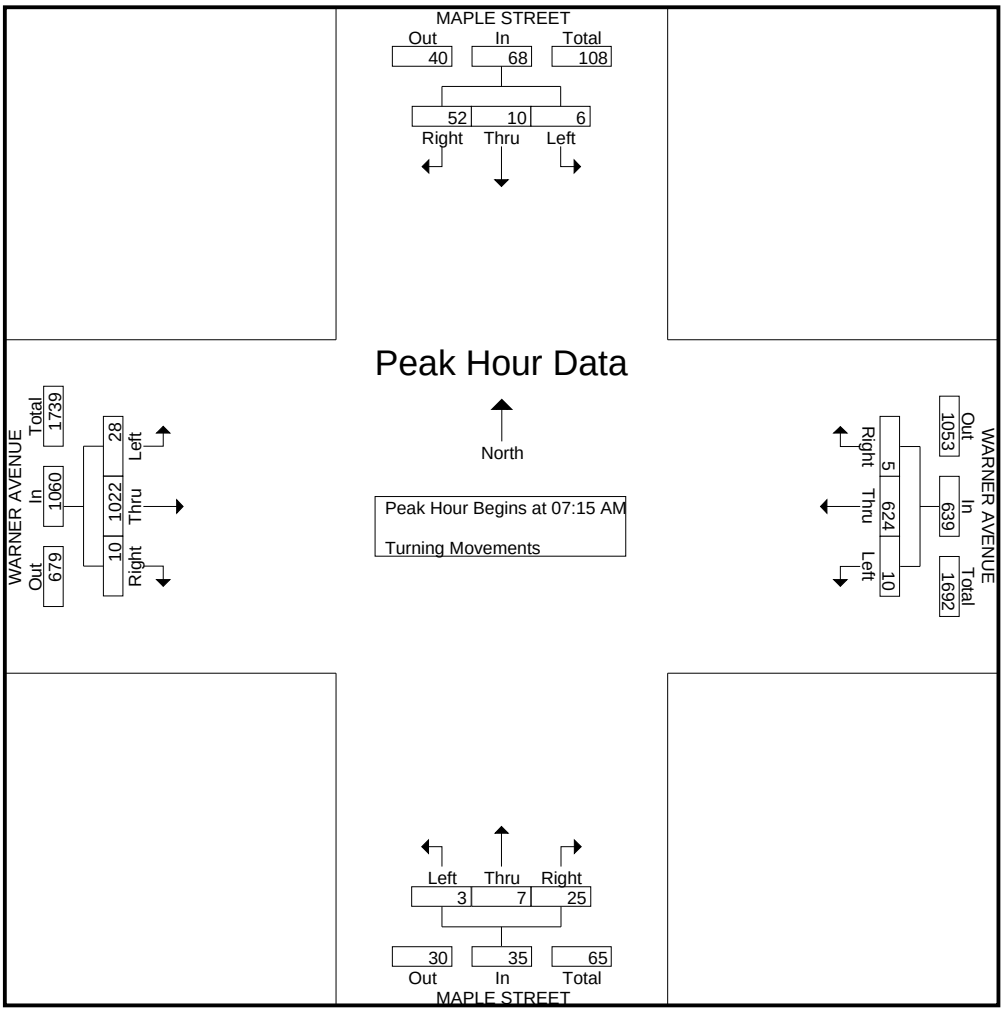
	MAPLE STREET Southbound			WARNER AVENUE Westbound			MAPLE STREET Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	6	2	4	1	136	1	1	1	1	1	162	2	318
07:15 AM	13	2	1	2	154	1	5	1	1	3	194	2	379
07:30 AM	21	1	3	2	175	5	6	0	1	1	246	7	468
07:45 AM	10	3	2	0	172	1	8	3	0	3	291	10	503
Total	50	8	10	5	637	8	20	5	3	8	893	21	1668
08:00 AM	8	4	0	1	123	3	6	3	1	3	291	9	452
08:15 AM	4	1	0	1	115	0	1	1	3	1	215	5	347
08:30 AM	4	3	3	0	131	0	0	1	0	3	195	3	343
08:45 AM	6	2	1	1	115	2	0	0	1	2	190	2	322
Total	22	10	4	3	484	5	7	5	5	9	891	19	1464
*** BREAK ***													
04:00 PM	9	1	0	1	229	2	4	0	2	4	199	16	467
04:15 PM	3	0	0	2	249	1	4	0	1	1	214	9	484
04:30 PM	6	0	0	1	251	4	6	2	0	5	179	10	464
04:45 PM	6	1	0	4	271	0	2	0	2	3	225	14	528
Total	24	2	0	8	1000	7	16	2	5	13	817	49	1943
05:00 PM	3	0	0	3	281	2	2	0	0	4	208	16	519
05:15 PM	7	1	1	7	278	2	4	1	0	4	236	21	562
05:30 PM	5	1	0	2	266	4	5	2	2	6	218	16	527
05:45 PM	5	1	0	1	237	0	4	2	2	2	235	10	499
Total	20	3	1	13	1062	8	15	5	4	16	897	63	2107
Grand Total	116	23	15	29	3183	28	58	17	17	46	3498	152	7182
Apprch %	75.3	14.9	9.7	0.9	98.2	0.9	63	18.5	18.5	1.2	94.6	4.1	
Total %	1.6	0.3	0.2	0.4	44.3	0.4	0.8	0.2	0.2	0.6	48.7	2.1	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAPLE STREET
E-W Direction: WARNER AVENUE

File Name : H1204013
Site Code : 00005061
Start Date : 4/18/2012

	MAPLE STREET Southbound				WARNER AVENUE Westbound				MAPLE STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	13	2	1	16	**2**	154	1	157	5	1	**1**	7	**3**	194	2	199	379
07:30 AM	**21**	1	**3**	**25**	2	**175**	**5**	**182**	6	0	1	7	1	246	7	254	468
07:45 AM	10	3	2	15	0	172	1	173	**8**	**3**	0	**11**	3	**291**	**10**	**304**	**503**
08:00 AM	8	**4**	0	12	1	123	3	127	6	3	1	10	3	291	9	303	452
Total Volume	52	10	6	68	5	624	10	639	25	7	3	35	10	1022	28	1060	1802
% App. Total	76.5	14.7	8.8		0.8	97.7	1.6		71.4	20	8.6		0.9	96.4	2.6		
PHF	.619	.625	.500	.680	.625	.891	.500	.878	.781	.583	.750	.795	.833	.878	.700	.872	.896

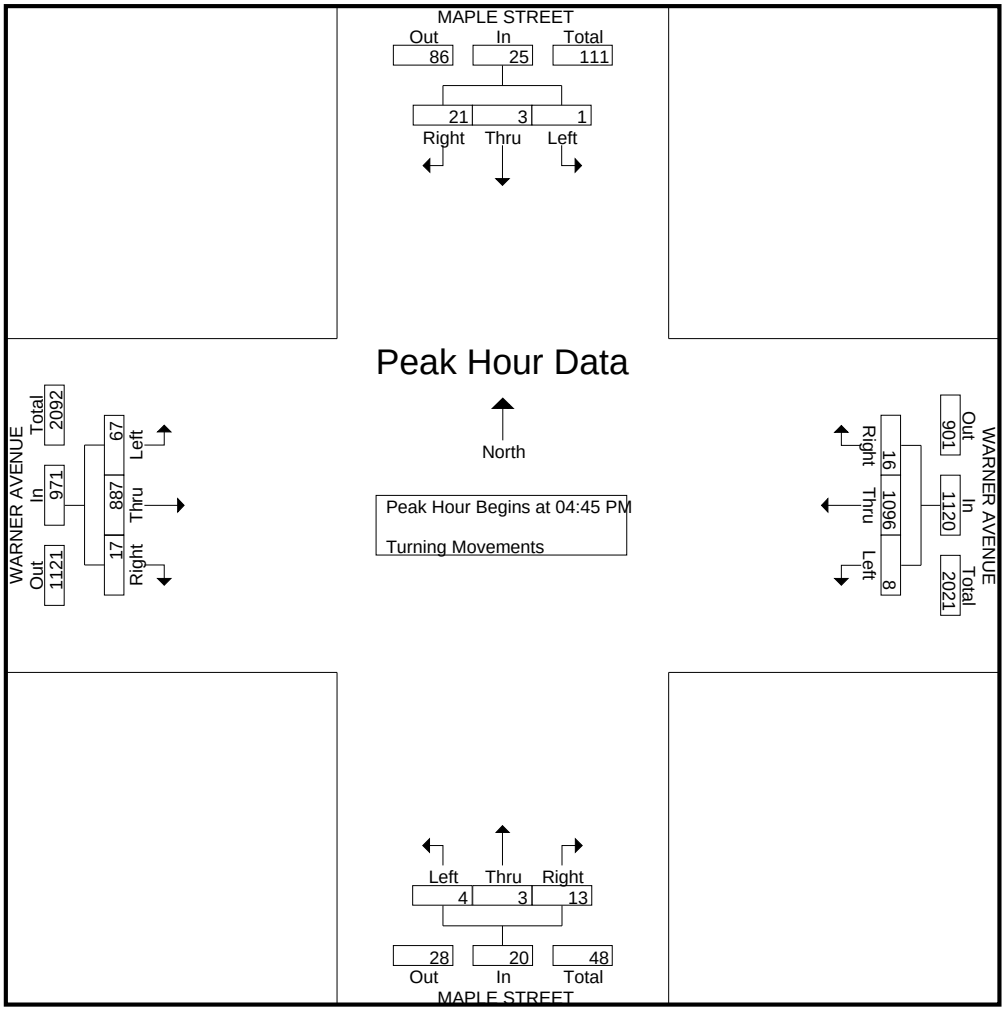


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S Direction: MAPLE STREET
E-W Direction: WARNER AVENUE

File Name : H1204013
Site Code : 00005061
Start Date : 4/18/2012

	MAPLE STREET Southbound				WARNER AVENUE Westbound				MAPLE STREET Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	6	**1**	0	7	4	271	0	275	2	0	**2**	4	3	225	14	242	528
05:00 PM	3	0	0	3	3	**281**	2	286	2	0	0	2	4	208	16	228	519
05:15 PM	**7**	1	**1**	**9**	**7**	278	2	**287**	4	1	0	5	4	**236**	**21**	**261**	**562**
05:30 PM	5	1	0	6	2	266	**4**	272	**5**	**2**	2	**9**	**6**	218	16	240	527
Total Volume	21	3	1	25	16	1096	8	1120	13	3	4	20	17	887	67	971	2136
% App. Total	84	12	4		1.4	97.9	0.7		65	15	20		1.8	91.3	6.9		
PHF	.750	.750	.250	.694	.571	.975	.500	.976	.650	.375	.500	.556	.708	.940	.798	.930	.950



TRAFFIC COUNT DATA

COUNTS CONDUCTED BY PTDS

WEDNESDAY - JUNE 13, 2012 CITY: SANTA ANA PROJECT: SC0062

WARNER BTWN MAIN & HALLADAY

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			17		27			12:00			231		216		
00:15			15		24			12:15			242		206		
00:30			9		21			12:30			236		221		
00:45			11	52	19	91	143	12:45			216	925	203	846	1771
01:00			15		17			13:00			207		210		
01:15			10		14			13:15			269		205		
01:30			14		12			13:30			233		257		
01:45			19	58	10	53	111	13:45			221	930	223	895	1825
02:00			14		13			14:00			233		220		
02:15			8		9			14:15			209		238		
02:30			11		7			14:30			269		261		
02:45			8	41	4	33	74	14:45			276	987	261	980	1967
03:00			7		2			15:00			289		269		
03:15			17		9			15:15			292		287		
03:30			19		13			15:30			260		292		
03:45			21	64	19	43	107	15:45			260	1101	312	1160	2261
04:00			26		21			16:00			274		331		
04:15			31		32			16:15			294		308		
04:30			34		45			16:30			270		312		
04:45			48	139	57	155	294	16:45			312	1150	322	1273	2423
05:00			60		64			17:00			308		327		
05:15			58		79			17:15			289		341		
05:30			74		84			17:30			236		330		
05:45			95	287	88	315	602	17:45			242	1075	298	1296	2371
06:00			121		86			18:00			247		253		
06:15			137		122			18:15			202		249		
06:30			171		132			18:30			196		234		
06:45			207	636	162	502	1138	18:45			191	836	229	965	1801
07:00			199		135			19:00			167		201		
07:15			241		129			19:15			138		217		
07:30			272		167			19:30			123		182		
07:45			221	933	212	643	1576	19:45			116	544	159	759	1303
08:00			226		216			20:00			111		154		
08:15			237		184			20:15			89		150		
08:30			255		179			20:30			84		142		
08:45			247	965	196	775	1740	20:45			72	356	134	580	936
09:00			223		167			21:00			70		125		
09:15			226		140			21:15			77		126		
09:30			183		162			21:30			66		134		
09:45			201	833	173	642	1475	21:45			63	276	117	502	778
10:00			179		145			22:00			54		105		
10:15			167		155			22:15			56		100		
10:30			180		179			22:30			40		108		
10:45			189	715	187	666	1381	22:45			36	186	85	398	584
11:00			177		198			23:00			23		81		
11:15			188		211			23:15			27		54		
11:30			212		221			23:30			24		44		
11:45			242	819	226	856	1675	23:45			21	95	30	209	304
Total Vol.				5542		4774	**10316**					8461		9863	**18324**

Daily Totals

NB	SB	EB	WB	**Combined**
		14003	14637	**28640**

	AM			**PM**		
Split %	53.7%	46.3%	**36.0%**	46.2%	53.8%	**64.0%**
Peak Hour	08:00	11:15	**11:45**	16:15	16:45	**16:30**
Volume	965	874	**1820**	1184	1320	**2481**
P.H.F.	0.95	0.97	**0.97**	0.95	0.97	**0.98**

WEDNESDAY - JUNE 13, 2012 CITY: SANTA ANA PROJECT: SC0062

WARNER BTWN STANDARD & GRAND

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			16		24			12:00			149		182		
00:15			12		21			12:15			157		177		
00:30			10		17			12:30			176		175		
00:45			8	46	15	77	123	12:45			184	666	158	692	1358
01:00			4		13			13:00			172		165		
01:15			7		11			13:15			169		172		
01:30			5		9			13:30			177		170		
01:45			4	20	7	40	60	13:45			186	704	167	674	1378
02:00			7		8			14:00			176		167		
02:15			5		7			14:15			187		224		
02:30			4		5			14:30			182		206		
02:45			6	22	4	24	46	14:45			211	756	234	831	1587
03:00			7		2			15:00			197		244		
03:15			12		7			15:15			209		259		
03:30			18		5			15:30			213		242		
03:45			19	56	9	23	79	15:45			185	804	287	1032	1836
04:00			22		12			16:00			198		293		
04:15			27		16			16:15			204		286		
04:30			36		21			16:30			216		267		
04:45			70	155	23	72	227	16:45			231	849	258	1104	1953
05:00			68		27			17:00			224		311		
05:15			85		29			17:15			221		271		
05:30			101		52			17:30			216		248		
05:45			115	369	77	185	554	17:45			207	868	246	1076	1944
06:00			121		124			18:00			162		221		
06:15			135		141			18:15			167		216		
06:30			167		157			18:30			160		186		
06:45			211	634	166	588	1222	18:45			162	651	174	797	1448
07:00			214		186			19:00			125		162		
07:15			219		205			19:15			135		144		
07:30			239		201			19:30			121		131		
07:45			250	922	248	840	1762	19:45			113	494	126	563	1057
08:00			277		210			20:00			134		105		
08:15			224		228			20:15			117		99		
08:30			207		212			20:30			110		91		
08:45			205	913	193	843	1756	20:45			107	468	86	381	849
09:00			169		164			21:00			95		73		
09:15			152		154			21:15			74		56		
09:30			152		150			21:30			66		43		
09:45			137	610	145	613	1223	21:45			60	295	39	211	506
10:00			134		135			22:00			42		35		
10:15			138		151			22:15			40		28		
10:30			119		164			22:30			25		24		
10:45			126	517	158	608	1125	22:45			29	136	21	108	244
11:00			129		177			23:00			26		32		
11:15			131		175			23:15			28		21		
11:30			134		207			23:30			17		23		
11:45			138	532	198	757	1289	23:45			22	93	19	95	188
Total Vol.				4796		4670	**9466**					6784		7564	**14348**

			Daily Totals		
	NB	SB	EB	WB	**Combined**
			11580	12234	**23814**

	AM			**PM**		
Split %	50.7%	49.3%	**39.7%**	47.3%	52.7%	**60.3%**
Peak Hour	07:30	07:45	**07:30**	16:30	15:45	**16:30**
Volume	990	898	**1877**	892	1133	**1999**
P.H.F.	0.89	0.91	**0.94**	0.97	0.97	**0.93**

C. TRAFFIX WORKSHEETS

TRAFFIX WORKSHEETS

YEAR 2012 – WITHOUT PROJECT – AM

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	C	xxxxx	0.786	C	xxxxx	0.786	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	B	xxxxx	0.697	B	xxxxx	0.697	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	C	xxxxx	0.780	C	xxxxx	0.780	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	C	xxxxx	0.726	C	xxxxx	0.726	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	A	xxxxx	0.564	A	xxxxx	0.564	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.433	A	xxxxx	0.433	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	A	xxxxx	0.465	A	xxxxx	0.465	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.339	A	xxxxx	0.339	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	C	xxxxx	0.735	C	xxxxx	0.735	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.685	B	xxxxx	0.685	+ 0.000 V/C
# 11 Maple St (NS) & Warner Ave (EW	D	25.9	0.118	D	25.9	0.118	+ 0.000 D/V

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	78	638	59	174	1039	74	74	968	162	101	642	83
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:	78	638	59	174	1039	74	74	968	162	101	642	83
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:	78	638	59	174	1039	74	74	968	162	101	642	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	638	59	174	1039	74	74	968	162	101	642	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	638	59	174	1039	74	74	968	162	101	642	83
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.83	0.17	1.00	1.87	0.13	1.00	2.00	1.00	1.00	2.66	0.34
Final Sat.:	1600	3029	271	1600	3087	213	1600	3400	1600	1600	4450	550
Capacity Analysis Module:												
Vol/Sat:	0.05	0.21	0.22	0.11	0.34	0.35	0.05	0.28	0.10	0.06	0.14	0.15
Crit Moves:	****					****		****		****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.697
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	53	429	86	181	974	190	247	1134	136	184	520	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	429	86	181	974	190	247	1134	136	184	520	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	429	86	181	974	190	247	1134	136	184	520	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	429	86	181	974	190	247	1134	136	184	520	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	429	86	181	974	190	247	1134	136	184	520	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.50	0.50	1.00	2.51	0.49	1.00	2.68	0.32	1.00	2.40	0.60
Final Sat.:	1600	4198	802	1600	4216	784	1600	4486	514	1600	4040	960
Capacity Analysis Module:												
Vol/Sat:	0.03	0.10	0.11	0.11	0.23	0.24	0.15	0.25	0.26	0.12	0.13	0.14
Crit Moves:	****					****			****	****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
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
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	48	269	202	62	356	35	77	1292	85	178	713	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	269	202	62	356	35	77	1292	85	178	713	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	48	269	202	62	356	35	77	1292	85	178	713	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	269	202	62	356	35	77	1292	85	178	713	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
FinalVolume:	48	269	202	62	356	35	77	1292	85	178	713	46
OvlAdjVol:			24									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.03	1.00
Lanes:	1.00	1.00	1.00	1.00	1.82	0.18	1.00	1.88	0.12	1.00	1.88	0.12
Final Sat.:	1600	1700	1600	1600	3014	286	1600	3102	198	1600	3106	194
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.13	0.04	0.12	0.12	0.05	0.42	0.43	0.11	0.23	0.24
OvlAdjV/S:			0.02									
Crit Moves:	****			****					****	****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.726
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	152	488	95	102	1276	188	185	935	255	176	610	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	152	488	95	102	1276	188	185	935	255	176	610	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	152	488	95	102	1276	188	185	935	255	176	610	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	488	95	102	1276	188	185	935	255	176	610	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	488	95	102	1276	188	185	935	255	176	610	29
OvlAdjVol:									179			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.03	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	1.91	0.09
Final Sat.:	3200	3400	1600	3200	5100	1600	1600	3400	1600	1600	3155	145
Capacity Analysis Module:												
Vol/Sat:	0.05	0.14	0.06	0.03	0.25	0.12	0.12	0.28	0.16	0.11	0.19	0.20
OvlAdjV/S:									0.11			
Crit Moves:	****			****			****			****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.564
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	1	1 0	0 1	1	0 0
Volume Module:												
Base Vol:	43	0	122	0	0	0	0	999	138	132	493	0
Growth Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Initial Bse:	43	0	122	0	0	0	0	999	138	132	493	0
User Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Volume:	43	0	122	0	0	0	0	999	138	132	493	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	0	122	0	0	0	0	999	138	132	493	0
PCE Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
MLF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
FinalVolume:	43	0	122	0	0	0	0	999	138	132	493	0
Saturation Flow Module:												
Sat/Lane:	1600 1600		1600	1600 1600		1600	1600 1600		1600	1600 1600		1600
Adjustment:	1.00 1.06		1.00	1.00 1.06		1.00	1.00 1.04		1.00	1.00 1.04		1.00
Lanes:	1.00 0.00		1.00	0.00 0.00		0.00	0.00 1.76		0.24	0.42 1.58		0.00
Final Sat.:	1600	0	1600	0	0	0	0	2912	388	676 2624		0
Capacity Analysis Module:												
Vol/Sat:	0.03 0.00		0.08	0.00 0.00		0.00	0.00 0.34		0.36	0.08 0.19		0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.433
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	1 0	1 0	0	0 1	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	2	0	1	164	0	104	81	999	0	0	440	55
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:	2	0	1	164	0	104	81	999	0	0	440	55
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:	2	0	1	164	0	104	81	999	0	0	440	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	0	1	164	0	104	81	999	0	0	440	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	0	1	164	0	104	81	999	0	0	440	55
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1600	0	1600	1600	0	1600	1600	3400	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.07	0.05	0.29	0.00	0.00	0.13	0.03
Crit Moves:		****		****				****		****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.465
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	119	555	191	165	561	192	273	597	196	73	258	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	555	191	165	561	192	273	597	196	73	258	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	119	555	191	165	561	192	273	597	196	73	258	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	555	191	165	561	192	273	597	196	73	258	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	119	555	191	165	561	192	273	597	196	73	258	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.23	0.77	1.00	2.24	0.76	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	1600	3771	1229	1600	3776	1224	3200	5100	1600	3200	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.16	0.10	0.15	0.16	0.09	0.12	0.12	0.02	0.08	0.05
Crit Moves:			****	****			****				****	

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.339
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	7	3	8	54	4	104	184	696	24	17	348	67
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:	7	3	8	54	4	104	184	696	24	17	348	67
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:	7	3	8	54	4	104	184	696	24	17	348	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	3	8	54	4	104	184	696	24	17	348	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	3	8	54	4	104	184	696	24	17	348	67
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.39	0.17	0.44	1.00	0.04	0.96	1.00	2.90	0.10	1.00	2.00	1.00
Final Sat.:	622	267	711	1600	59	1541	1600	4840	160	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.03	0.07	0.07	0.12	0.14	0.15	0.01	0.10	0.04
Crit Moves:	****			****			****			****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	71	522	248	269	1208	160	113	936	111	152	488	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	522	248	269	1208	160	113	936	111	152	488	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	71	522	248	269	1208	160	113	936	111	152	488	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	522	248	269	1208	160	113	936	111	152	488	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	71	522	248	269	1208	160	113	936	111	152	488	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.65	0.35	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4439	561	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.16	0.17	0.27	0.28	0.07	0.28	0.07	0.10	0.14	0.05
Crit Moves:			****	****				****		****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.685
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	956	0	595	154	984	0	0	864	541
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	956	0	595	154	984	0	0	864	541
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	956	0	595	154	984	0	0	864	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	956	0	595	154	984	0	0	864	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	956	0	595	154	984	0	0	864	0
OvlAdjVol:						441						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.30	0.00	0.37	0.10	0.19	0.00	0.00	0.25	0.00
OvlAdjV/S:						0.28						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Existing Year 2012 Without Project
AM Peak Hour

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

Intersection #11 Maple St (NS) & Warner Ave (EW)

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: D[25.9]

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		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 1 0 1 0			0 1 0 1 0		
Volume Module:												
Base Vol:	3	7	25	6	10	52	28	1022	10	10	624	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:	3	7	25	6	10	52	28	1022	10	10	624	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:	3	7	25	6	10	52	28	1022	10	10	624	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	7	25	6	10	52	28	1022	10	10	624	5
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1420	1732	516	1217	1735	315	629	xxxx	xxxxx	1032	xxxx	xxxxx
Potent Cap.:	98	89	509	139	89	687	963	xxxx	xxxxx	681	xxxx	xxxxx
Move Cap.:	80	85	509	120	85	687	963	xxxx	xxxxx	681	xxxx	xxxxx
Volume/Cap:	0.04	0.08	0.05	0.05	0.12	0.08	0.03	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	10.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	207	xxxxx	xxxx	279	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	0.9	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	25.9	xxxxx	xxxxx	22.0	xxxxx	8.9	xxxx	xxxxx	10.4	xxxx	xxxxx
Shared LOS:	*	D	*	*	C	*	A	*	*	B	*	*
ApproachDel:	25.9			22.0			xxxxxx			xxxxxx		
ApproachLOS:	D			C			*			*		

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

TRAFFIX WORKSHEETS

YEAR 2012 – WITHOUT PROJECT – PM

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	D	xxxxx	0.842	D	xxxxx	0.842	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	C	xxxxx	0.791	C	xxxxx	0.791	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	D	xxxxx	0.838	D	xxxxx	0.838	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	D	xxxxx	0.836	D	xxxxx	0.836	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	A	xxxxx	0.582	A	xxxxx	0.582	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.519	A	xxxxx	0.519	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	B	xxxxx	0.648	B	xxxxx	0.648	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.497	A	xxxxx	0.497	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	D	xxxxx	0.862	D	xxxxx	0.862	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.686	B	xxxxx	0.686	+ 0.000 V/C
# 11 Maple St (NS) & Warner Ave (EW	E	39.3	0.105	E	39.3	0.105	+ 0.000 D/V

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1	1	0 2	1	0
Volume Module:																
Base Vol:	128	1078	81		105	682	116		120	431	92		102	1340	88	
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:	128	1078	81		105	682	116		120	431	92		102	1340	88	
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:	128	1078	81		105	682	116		120	431	92		102	1340	88	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	128	1078	81		105	682	116		120	431	92		102	1340	88	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	128	1078	81		105	682	116		120	431	92		102	1340	88	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.03	1.00		1.00	1.04	1.00		1.00	1.06	1.00		1.00	1.04	1.00	
Lanes:	1.00	1.86	0.14		1.00	1.71	0.29		1.00	2.00	1.00		1.00	2.82	0.18	
Final Sat.:	1600	3076	224		1600	2835	465		1600	3400	1600		1600	4704	296	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.35	0.36		0.07	0.24	0.25		0.08	0.13	0.06		0.06	0.28	0.30	
Crit Moves:			****		****				****						****	

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	236	1207	183	159	405	210	164	747	89	103	1110	129
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:	236	1207	183	159	405	210	164	747	89	103	1110	129
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:	236	1207	183	159	405	210	164	747	89	103	1110	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	1207	183	159	405	210	164	747	89	103	1110	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	236	1207	183	159	405	210	164	747	89	103	1110	129
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.61	0.39	1.00	2.00	1.00	1.00	2.68	0.32	1.00	2.69	0.31
Final Sat.:	1600	4368	632	1600	3400	1600	1600	4489	511	1600	4500	500
Capacity Analysis Module:												
Vol/Sat:	0.15	0.28	0.29	0.10	0.12	0.13	0.10	0.17	0.17	0.06	0.25	0.26
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.838
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
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
Lanes:	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	81	465	267	32	320	85	152	990	42	112	1225	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:	81	465	267	32	320	85	152	990	42	112	1225	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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	465	267	32	320	85	152	990	42	112	1225	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	465	267	32	320	85	152	990	42	112	1225	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	465	267	32	320	85	152	990	42	112	1225	79
OvlAdjVol:			155									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.03	1.00
Lanes:	1.00	1.00	1.00	1.00	1.58	0.42	1.00	1.92	0.08	1.00	1.88	0.12
Final Sat.:	1600	1700	1600	1600	2628	672	1600	3170	130	1600	3106	194
Capacity Analysis Module:												
Vol/Sat:	0.05	0.27	0.17	0.02	0.12	0.13	0.10	0.31	0.32	0.07	0.39	0.41
OvlAdjV/S:			0.10									
Crit Moves:	****			****			****					****

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.836
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Ovl				Include			
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	
Lanes:	2	0 2	0 1		2	0 3	0 1		1	0 2	0 1		1	0 1	1	0
Volume Module:																
Base Vol:	267	1128	148		142	624	190		185	811	107		145	854	110	
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:	267	1128	148		142	624	190		185	811	107		145	854	110	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	267	1128	148		142	624	190		185	811	107		145	854	110	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	267	1128	148		142	624	190		185	811	107		145	854	110	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	267	1128	148		142	624	190		185	811	107		145	854	110	
OvlAdjVol:											0					
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.04	1.00	
Lanes:	2.00	2.00	1.00		2.00	3.00	1.00		1.00	2.00	1.00		1.00	1.77	0.23	
Final Sat.:	3200	3400	1600		3200	5100	1600		1600	3400	1600		1600	2935	365	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.33	0.09		0.04	0.12	0.12		0.12	0.24	0.07		0.09	0.29	0.30	
OvlAdjV/S:											0.00					
Crit Moves:	****				****				****						****	

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.582
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	28	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 0	0	1	0	0 0	0	0	0	0 1	1	0	0	1 1	0	0
Volume Module:																
Base Vol:	131	0	300		0	0	0		0	762	76		133	922	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	131	0	300		0	0	0		0	762	76		133	922	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	131	0	300		0	0	0		0	762	76		133	922	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	131	0	300		0	0	0		0	762	76		133	922	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	131	0	300		0	0	0		0	762	76		133	922	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.04	1.00	
Lanes:	1.00	0.00	1.00		0.00	0.00	0.00		0.00	1.82	0.18		0.25	1.75	0.00	
Final Sat.:	1600	0	1600		0	0	0		0	3010	290		403	2897	0	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.00	0.19		0.00	0.00	0.00		0.00	0.25	0.26		0.08	0.32	0.00	
Crit Moves:			****								****		****			

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.519
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 0	1	0	1	0 0	0	1	1	0 2	0	0	0	0 2	0	1
Volume Module:																
Base Vol:	5	1	18		51	0	92		174	741	0		0	1064	201	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	5	1	18		51	0	92		174	741	0		0	1064	201	
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:	5	1	18		51	0	92		174	741	0		0	1064	201	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	5	1	18		51	0	92		174	741	0		0	1064	201	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	5	1	18		51	0	92		174	741	0		0	1064	201	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	0.05	0.95		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	1600	84	1516		1600	0	1600		1600	3400	0		0	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.01	0.01		0.03	0.00	0.06		0.11	0.22	0.00		0.00	0.31	0.13	
Crit Moves:	****						****		****					****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	194	720	79	95	495	244	359	381	90	121	733	261
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:	194	720	79	95	495	244	359	381	90	121	733	261
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:	194	720	79	95	495	244	359	381	90	121	733	261
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	720	79	95	495	244	359	381	90	121	733	261
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	720	79	95	495	244	359	381	90	121	733	261
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.70	0.30	1.00	2.01	0.99	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	1600	4525	475	1600	3415	1585	3200	5100	1600	3200	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.17	0.06	0.14	0.15	0.11	0.07	0.06	0.04	0.22	0.16
Crit Moves:	****					****	****				****	

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.497
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	23	7	16	86	1	120	142	494	9	15	912	115
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:	23	7	16	86	1	120	142	494	9	15	912	115
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:	23	7	16	86	1	120	142	494	9	15	912	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	7	16	86	1	120	142	494	9	15	912	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	7	16	86	1	120	142	494	9	15	912	115
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.50	0.15	0.35	1.00	0.01	0.99	1.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	800	243	557	1600	13	1587	1600	4914	86	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.05	0.08	0.08	0.09	0.10	0.10	0.01	0.27	0.07
Crit Moves:	****				****		****				****	

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.862
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0	2	0	1	1	0	2	1	0	1	0	2	0	1	
Volume Module:																
Base Vol:	176	1242	463		123	599	117		197	701	53		199	868	127	
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:	176	1242	463		123	599	117		197	701	53		199	868	127	
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:	176	1242	463		123	599	117		197	701	53		199	868	127	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	176	1242	463		123	599	117		197	701	53		199	868	127	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	176	1242	463		123	599	117		197	701	53		199	868	127	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.05	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.51	0.49		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3400	1600		1600	4216	784		1600	3400	1600		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.37	0.29		0.08	0.14	0.15		0.12	0.21	0.03		0.12	0.26	0.08	
Crit Moves:		****				****				****				****		

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.686
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	523	0	552	293	1140	0	0	1034	408
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	523	0	552	293	1140	0	0	1034	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	523	0	552	293	1140	0	0	1034	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	523	0	552	293	1140	0	0	1034	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	523	0	552	293	1140	0	0	1034	0
OvlAdjVol:						259						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.34	0.18	0.22	0.00	0.00	0.30	0.00
OvlAdjV/S:						0.16						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Existing Year 2012 Without Project
PM Peak Hour

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

Intersection #11 Maple St (NS) & Warner Ave (EW)

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: E[39.3]

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			
Rights:	Include			Include			Include				Include			
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 1	0	1	0	0 1	0	1	0
Volume Module:														
Base Vol:	4	3	13	1	3	21	67	887	17		8	1096	16	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	4	3	13	1	3	21	67	887	17		8	1096	16	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	4	3	13	1	3	21	67	887	17		8	1096	16	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	4	3	13	1	3	21	67	887	17		8	1096	16	
Critical Gap Module:														
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1595	2158	452	1699	2158	556	1112	xxxx	xxxxx		904	xxxx	xxxxx	
Potent Cap.:	73	48	560	61	48	480	635	xxxx	xxxxx		761	xxxx	xxxxx	
Move Cap.:	60	42	560	51	42	480	635	xxxx	xxxxx		761	xxxx	xxxxx	
Volume/Cap:	0.07	0.07	0.02	0.02	0.07	0.04	0.11	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx		0.0	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.3	xxxx	xxxxx		9.8	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	B	*	*		A	*	*	
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	125	xxxxx	xxxx	187	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	0.5	xxxxx	0.4	xxxx	xxxxx		0.0	xxxx	xxxxx	
Shrd ConDel:	xxxxx	39.3	xxxxx	xxxxx	27.3	xxxxx	11.3	xxxx	xxxxx		9.8	xxxx	xxxxx	
Shared LOS:	*	E	*	*	D	*	B	*	*		A	*	*	
ApproachDel:		39.3			27.3			xxxxxx				xxxxxx		
ApproachLOS:		E			D			*				*		

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

TRAFFIX WORKSHEETS

YEAR 2012 –WITH PROJECT – AM

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Main St (NS) & Edinger Ave (EW	C	xxxxx	0.786	C	xxxxx	0.786	+ 0.000
# 2 S Grand Ave (NS) & E Edinger A	B	xxxxx	0.697	B	xxxxx	0.697	+ 0.000
# 3 S Flower St (NS) & W Warner Av	C	xxxxx	0.780	C	xxxxx	0.780	+ 0.000
# 4 Main St (NS) & Warner Ave (EW)	B	xxxxx	0.648	B	xxxxx	0.648	+ 0.000
# 5 Halladay St (NS) & E Warner Av	A	xxxxx	0.445	A	xxxxx	0.445	+ 0.000
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.436	A	xxxxx	0.436	+ 0.000
# 7 S Grand Ave (NS) & E Warner Av	A	xxxxx	0.450	A	xxxxx	0.450	+ 0.000
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.323	A	xxxxx	0.323	+ 0.000
# 9 Main St (NS) & Dyer Rd (EW)	C	xxxxx	0.735	C	xxxxx	0.735	+ 0.000
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.685	B	xxxxx	0.685	+ 0.000
# 11 Maple Street (NS) & Warner Ave	A	xxxxx	0.333	A	xxxxx	0.333	+ 0.000

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	78	638	59	174	1039	74	74	968	162	101	642	83
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:	78	638	59	174	1039	74	74	968	162	101	642	83
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:	78	638	59	174	1039	74	74	968	162	101	642	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	638	59	174	1039	74	74	968	162	101	642	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	638	59	174	1039	74	74	968	162	101	642	83
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.83	0.17	1.00	1.87	0.13	1.00	2.00	1.00	1.00	2.66	0.34
Final Sat.:	1600	3029	271	1600	3087	213	1600	3400	1600	1600	4450	550
Capacity Analysis Module:												
Vol/Sat:	0.05	0.21	0.22	0.11	0.34	0.35	0.05	0.28	0.10	0.06	0.14	0.15
Crit Moves:	****					****		****		****		

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.697
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0
Volume Module:																
Base Vol:	53	429	86		181	974	190		247	1134	136		184	520	130	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	53	429	86		181	974	190		247	1134	136		184	520	130	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	53	429	86		181	974	190		247	1134	136		184	520	130	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	53	429	86		181	974	190		247	1134	136		184	520	130	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	53	429	86		181	974	190		247	1134	136		184	520	130	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.05	1.00		1.00	1.05	1.00		1.00	1.05	1.00		1.00	1.05	1.00	
Lanes:	1.00	2.50	0.50		1.00	2.51	0.49		1.00	2.68	0.32		1.00	2.40	0.60	
Final Sat.:	1600	4198	802		1600	4216	784		1600	4486	514		1600	4040	960	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.10	0.11		0.11	0.23	0.24		0.15	0.25	0.26		0.12	0.13	0.14	
Crit Moves:	****						****				****		****			

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	48	269	202		62	356	35		77	1292	85		178	713	46	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	48	269	202		62	356	35		77	1292	85		178	713	46	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	48	269	202		62	356	35		77	1292	85		178	713	46	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	48	269	202		62	356	35		77	1292	85		178	713	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	
FinalVolume:	48	269	202		62	356	35		77	1292	85		178	713	46	
OvlAdjVol:			24													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.03	1.00		1.00	1.06	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.82	0.18		1.00	1.88	0.12		1.00	2.00	1.00	
Final Sat.:	1600	1700	1600		1600	3014	286		1600	3102	198		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.16	0.13		0.04	0.12	0.12		0.05	0.42	0.43		0.11	0.21	0.03	
OvlAdjV/S:			0.02													
Crit Moves:	****				****						****		****			

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	2 0	2 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	152	488	95	102	1276	188	264	856	255	176	610	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	152	488	95	102	1276	188	264	856	255	176	610	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	152	488	95	102	1276	188	264	856	255	176	610	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	488	95	102	1276	188	264	856	255	176	610	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	488	95	102	1276	188	264	856	255	176	610	29
OvlAdjVol:									179			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	3400	1600	3200	5100	1600	3200	3400	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.14	0.06	0.03	0.25	0.12	0.08	0.25	0.16	0.06	0.12	0.02
OvlAdjV/S:									0.11			
Crit Moves:	****			****			****			****		

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.445
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	47	0	122	0	0	0	0	914	138	159	489	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	0	122	0	0	0	0	914	138	159	489	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	47	0	122	0	0	0	0	914	138	159	489	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	0	122	0	0	0	0	914	138	159	489	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	47	0	122	0	0	0	0	914	138	159	489	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.61	0.39	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4370	630	1600	5100	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.08	0.00	0.00	0.00	0.00	0.21	0.22	0.10	0.10	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.436
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1 0	1	0	1 0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	5	0	1	293	0	104	188	763	8	47	440	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	0	1	293	0	104	188	763	8	47	440	55
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:	5	0	1	293	0	104	188	763	8	47	440	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	0	1	293	0	104	188	763	8	47	440	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	0	1	293	0	104	188	763	8	47	440	55
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.97	0.03	1.00	2.67	0.33
Final Sat.:	1600	1700	1600	1600	0	1600	1600	4950	50	1600	4467	533
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.07	0.12	0.15	0.16	0.03	0.10	0.10
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.450
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	22	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	1	0	1	0 2	1	0	2	0 3	0	1	2	0 3	0	1
Volume Module:																
Base Vol:	119	555	191		165	561	192		305	597	196		73	258	75	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	119	555	191		165	561	192		305	597	196		73	258	75	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	119	555	191		165	561	192		305	597	196		73	258	75	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	119	555	191		165	561	192		305	597	196		73	258	75	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	119	555	191		165	561	192		305	597	196		73	258	75	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	2.23	0.77		1.00	2.24	0.76		2.00	3.00	1.00		2.00	3.00	1.00	
Final Sat.:	1600	3771	1229		1600	3776	1224		3200	5100	1600		3200	5100	1600	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.15	0.16		0.10	0.15	0.16		0.10	0.12	0.12		0.02	0.05	0.05	
Crit Moves:		****	****						****					****		

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.323
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	7	3	8	54	4	104	184	696	24	17	348	67
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:	7	3	8	54	4	104	184	696	24	17	348	67
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:	7	3	8	54	4	104	184	696	24	17	348	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	3	8	54	4	104	184	696	24	17	348	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	3	8	54	4	104	184	696	24	17	348	67
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	0.39	0.17	0.44	1.00	0.04	0.96	1.00	2.90	0.10	1.00	2.52	0.48
Final Sat.:	622	267	711	1600	59	1541	1600	4840	160	1600	4225	775
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.03	0.07	0.07	0.12	0.14	0.15	0.01	0.08	0.09
Crit Moves:	****			****			****					****

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	71	522	248	269	1208	160	113	936	111	152	488	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	522	248	269	1208	160	113	936	111	152	488	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	71	522	248	269	1208	160	113	936	111	152	488	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	522	248	269	1208	160	113	936	111	152	488	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	71	522	248	269	1208	160	113	936	111	152	488	78
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.65	0.35	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4439	561	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.16	0.17	0.27	0.28	0.07	0.28	0.07	0.10	0.14	0.05
Crit Moves:			****	****				****		****		

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.685
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	956	0	595	154	984	0	0	864	541
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	956	0	595	154	984	0	0	864	541
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	956	0	595	154	984	0	0	864	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	956	0	595	154	984	0	0	864	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	956	0	595	154	984	0	0	864	0
OvlAdjVol:						441						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.30	0.00	0.37	0.10	0.19	0.00	0.00	0.25	0.00
OvlAdjV/S:						0.28						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Maple Street (NS) & Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.333
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	18	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0 1!	0	0	0 1!	0	1	0 2	1 0	1	0 2	1 0
Volume Module:												
Base Vol:	7	12	25	25	15	52	89	942	10	36	598	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:	7	12	25	25	15	52	89	942	10	36	598	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:	7	12	25	25	15	52	89	942	10	36	598	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	12	25	25	15	52	89	942	10	36	598	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	12	25	25	15	52	89	942	10	36	598	5
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	0.16	0.27	0.57	0.27	0.16	0.57	1.00	2.97	0.03	1.00	2.98	0.02
Final Sat.:	255	436	909	435	261	904	1600	4950	50	1600	4960	40
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.03	0.02	0.06	0.06	0.06	0.19	0.20	0.02	0.12	0.13
Crit Moves:	****			****					****	****		

TRAFFIX WORKSHEETS

YEAR 2012 – WITH PROJECT – PM

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	D	xxxxx	0.842	D	xxxxx	0.842	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	C	xxxxx	0.791	C	xxxxx	0.791	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	C	xxxxx	0.790	C	xxxxx	0.790	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	B	xxxxx	0.688	B	xxxxx	0.688	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	A	xxxxx	0.482	A	xxxxx	0.482	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.554	A	xxxxx	0.554	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	B	xxxxx	0.600	B	xxxxx	0.600	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.443	A	xxxxx	0.443	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	D	xxxxx	0.862	D	xxxxx	0.862	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.686	B	xxxxx	0.686	+ 0.000 V/C
# 11 Maple Street (NS) & Warner Ave	A	xxxxx	0.427	A	xxxxx	0.427	+ 0.000 V/C

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	128	1078	81	105	682	116	120	431	92	102	1340	88
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:	128	1078	81	105	682	116	120	431	92	102	1340	88
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:	128	1078	81	105	682	116	120	431	92	102	1340	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	1078	81	105	682	116	120	431	92	102	1340	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	1078	81	105	682	116	120	431	92	102	1340	88
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.04	1.00
Lanes:	1.00	1.86	0.14	1.00	1.71	0.29	1.00	2.00	1.00	1.00	2.82	0.18
Final Sat.:	1600	3076	224	1600	2835	465	1600	3400	1600	1600	4704	296
Capacity Analysis Module:												
Vol/Sat:	0.08	0.35	0.36	0.07	0.24	0.25	0.08	0.13	0.06	0.06	0.28	0.30
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	236	1207	183	159	405	210	164	747	89	103	1110	129
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:	236	1207	183	159	405	210	164	747	89	103	1110	129
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:	236	1207	183	159	405	210	164	747	89	103	1110	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	1207	183	159	405	210	164	747	89	103	1110	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	236	1207	183	159	405	210	164	747	89	103	1110	129
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.61	0.39	1.00	2.00	1.00	1.00	2.68	0.32	1.00	2.69	0.31
Final Sat.:	1600	4368	632	1600	3400	1600	1600	4489	511	1600	4500	500
Capacity Analysis Module:												
Vol/Sat:	0.15	0.28	0.29	0.10	0.12	0.13	0.10	0.17	0.17	0.06	0.25	0.26
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	81	465	267		32	320	85		152	990	42		112	1225	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:	81	465	267		32	320	85		152	990	42		112	1225	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:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	81	465	267		32	320	85		152	990	42		112	1225	79	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	81	465	267		32	320	85		152	990	42		112	1225	79	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	81	465	267		32	320	85		152	990	42		112	1225	79	
OvlAdjVol:			155													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.04	1.00		1.00	1.03	1.00		1.00	1.06	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.58	0.42		1.00	1.92	0.08		1.00	2.00	1.00	
Final Sat.:	1600	1700	1600		1600	2628	672		1600	3170	130		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.27	0.17		0.02	0.12	0.13		0.10	0.31	0.32		0.07	0.36	0.05	
OvlAdjV/S:			0.10													
Crit Moves:	****				****				****				****			

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.688
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	2 0	2 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	267	1128	148	142	624	190	239	757	107	145	854	110
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:	267	1128	148	142	624	190	239	757	107	145	854	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	267	1128	148	142	624	190	239	757	107	145	854	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	1128	148	142	624	190	239	757	107	145	854	110
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	267	1128	148	142	624	190	239	757	107	145	854	110
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	3400	1600	3200	5100	1600	3200	3400	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.33	0.09	0.04	0.12	0.12	0.07	0.22	0.07	0.05	0.17	0.07
OvlAdjV/S:									0.00			
Crit Moves:	****			****			****			****		

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.482
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	134	0	300	0	0	0	0	707	76	141	919	0
Growth Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
Initial Bse:	134	0	300	0	0	0	0	707	76	141	919	0
User Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
PHF Volume:	134	0	300	0	0	0	0	707	76	141	919	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	0	300	0	0	0	0	707	76	141	919	0
PCE Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
MLF Adj:	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00	1.00 1.00		1.00
FinalVolume:	134	0	300	0	0	0	0	707	76	141	919	0
Saturation Flow Module:												
Sat/Lane:	1600 1600		1600	1600 1600		1600	1600 1600		1600	1600 1600		1600
Adjustment:	1.00 1.06		1.00	1.00 1.06		1.00	1.00 1.05		1.00	1.00 1.06		1.00
Lanes:	1.00 0.00		1.00	0.00 0.00		0.00	0.00 2.71		0.29	1.00 3.00		0.00
Final Sat.:	1600	0	1600	0	0	0	0 4534		466	1600 5100		0
Capacity Analysis Module:												
Vol/Sat:	0.08 0.00		0.19	0.00 0.00		0.00	0.00 0.16		0.16	0.09 0.18		0.00
Crit Moves:			****					****		****		

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.554
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1 0	1	0	1 0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	5	1	18	108	0	92	279	579	1	24	1064	201
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	1	18	108	0	92	279	579	1	24	1064	201
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:	5	1	18	108	0	92	279	579	1	24	1064	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	1	18	108	0	92	279	579	1	24	1064	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	1	18	108	0	92	279	579	1	24	1064	201
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.99	0.01	1.00	2.52	0.48
Final Sat.:	1600	1700	1600	1600	0	1600	1600	4992	8	1600	4237	763
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.01	0.07	0.00	0.06	0.17	0.12	0.12	0.02	0.25	0.26
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.600
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	3	0 1
Volume Module:												
Base Vol:	194	720	79	95	495	244	373	381	90	121	733	261
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:	194	720	79	95	495	244	373	381	90	121	733	261
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:	194	720	79	95	495	244	373	381	90	121	733	261
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	720	79	95	495	244	373	381	90	121	733	261
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	720	79	95	495	244	373	381	90	121	733	261
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.70	0.30	1.00	2.01	0.99	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	4525	475	1600	3415	1585	3200	5100	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.17	0.06	0.14	0.15	0.12	0.07	0.06	0.04	0.14	0.16
Crit Moves:	****					****	****					****

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.443
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	23	7	16	86	1	120	142	494	9	15	912	115
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:	23	7	16	86	1	120	142	494	9	15	912	115
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:	23	7	16	86	1	120	142	494	9	15	912	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	7	16	86	1	120	142	494	9	15	912	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	7	16	86	1	120	142	494	9	15	912	115
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	0.50	0.15	0.35	1.00	0.01	0.99	1.00	2.95	0.05	1.00	2.66	0.34
Final Sat.:	800	243	557	1600	13	1587	1600	4914	86	1600	4463	537
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.05	0.08	0.08	0.09	0.10	0.10	0.01	0.20	0.21
Crit Moves:	****			****			****					****

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.862
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	176	1242	463	123	599	117	197	701	53	199	868	127
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:	176	1242	463	123	599	117	197	701	53	199	868	127
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:	176	1242	463	123	599	117	197	701	53	199	868	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	176	1242	463	123	599	117	197	701	53	199	868	127
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	176	1242	463	123	599	117	197	701	53	199	868	127
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.51	0.49	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4216	784	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.37	0.29	0.08	0.14	0.15	0.12	0.21	0.03	0.12	0.26	0.08
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.686
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	523	0	552	293	1140	0	0	1034	408
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	523	0	552	293	1140	0	0	1034	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	523	0	552	293	1140	0	0	1034	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	523	0	552	293	1140	0	0	1034	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	523	0	552	293	1140	0	0	1034	0
OvlAdjVol:						259						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.34	0.18	0.22	0.00	0.00	0.30	0.00
OvlAdjV/S:						0.16						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Maple Street (NS) & Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.427
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	2	1	0	2	1	0
Volume Module:																
Base Vol:	9	15	13		18	7	21		183	870	17		22	1082	16	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	9	15	13		18	7	21		183	870	17		22	1082	16	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	9	15	13		18	7	21		183	870	17		22	1082	16	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	9	15	13		18	7	21		183	870	17		22	1082	16	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	9	15	13		18	7	21		183	870	17		22	1082	16	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.04	1.00		1.00	1.04	1.00	
Lanes:	0.24	0.41	0.35		0.39	0.15	0.46		1.00	2.94	0.06		1.00	2.96	0.04	
Final Sat.:	389	649	562		626	243	730		1600	4908	92		1600	4930	70	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.02	0.02		0.01	0.03	0.03		0.11	0.18	0.18		0.01	0.22	0.23	
Crit Moves:	****					****			****						****	

TRAFFIX WORKSHEETS

YEAR 2020 – WITHOUT PROJECT – AM

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	D	xxxxx	0.871	D	xxxxx	0.871	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	C	xxxxx	0.788	C	xxxxx	0.788	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	D	xxxxx	0.809	D	xxxxx	0.809	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	C	xxxxx	0.798	C	xxxxx	0.798	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	B	xxxxx	0.620	B	xxxxx	0.620	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.560	A	xxxxx	0.560	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	B	xxxxx	0.636	B	xxxxx	0.636	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.418	A	xxxxx	0.418	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	D	xxxxx	0.832	D	xxxxx	0.832	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.692	B	xxxxx	0.692	+ 0.000 V/C
# 11 Maple St (NS) & Warner Ave (E	F	53.8	0.248	F	53.8	0.248	+ 0.000 D/V

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.871
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	101	652	86	216	1100	82	60	1114	159	111	740	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	652	86	216	1100	82	60	1114	159	111	740	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	652	86	216	1100	82	60	1114	159	111	740	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	652	86	216	1100	82	60	1114	159	111	740	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	652	86	216	1100	82	60	1114	159	111	740	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.77	0.23	1.00	1.86	0.14	1.00	2.00	1.00	1.00	2.72	0.28
Final Sat.:	1600	2927	373	1600	3078	222	1600	3400	1600	1600	4558	442
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.23	0.14	0.36	0.37	0.04	0.33	0.10	0.07	0.16	0.17
Crit Moves:	****					****		****		****		

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.788
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	87	490	112	180	1016	240	256	1334	168	187	639	111
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:	87	490	112	180	1016	240	256	1334	168	187	639	111
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:	87	490	112	180	1016	240	256	1334	168	187	639	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	490	112	180	1016	240	256	1334	168	187	639	111
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	87	490	112	180	1016	240	256	1334	168	187	639	111
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.44	0.56	1.00	2.43	0.57	1.00	2.66	0.34	1.00	2.56	0.44
Final Sat.:	1600	4107	893	1600	4083	917	1600	4463	537	1600	4290	710
Capacity Analysis Module:												
Vol/Sat:	0.05	0.12	0.13	0.11	0.25	0.26	0.16	0.30	0.31	0.12	0.15	0.16
Crit Moves:	****					****			****	****		

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
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
Lanes:	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	55	258	246	72	353	38	67	1415	80	166	731	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	258	246	72	353	38	67	1415	80	166	731	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	258	246	72	353	38	67	1415	80	166	731	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	258	246	72	353	38	67	1415	80	166	731	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	258	246	72	353	38	67	1415	80	166	731	39
OvlAdjVol:			80									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.03	1.00
Lanes:	1.00	1.00	1.00	1.00	1.81	0.19	1.00	1.89	0.11	1.00	1.90	0.10
Final Sat.:	1600	1700	1600	1600	2989	311	1600	3129	171	1600	3138	162
Capacity Analysis Module:												
Vol/Sat:	0.03	0.15	0.15	0.05	0.12	0.12	0.04	0.45	0.47	0.10	0.23	0.24
OvlAdjV/S:			0.05									
Crit Moves:	****			****					****	****		

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.798
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Ovl				Include			
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	
Lanes:	2	0 2	0	1	2	0 3	0	1	1	0 2	0	1	1	0 1	1	0
Volume Module:																
Base Vol:	192	559	114		93	1364	180		195	1037	332		195	607	26	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	192	559	114		93	1364	180		195	1037	332		195	607	26	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	192	559	114		93	1364	180		195	1037	332		195	607	26	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	192	559	114		93	1364	180		195	1037	332		195	607	26	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	192	559	114		93	1364	180		195	1037	332		195	607	26	
OvlAdjVol:											236					
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.03	1.00	
Lanes:	2.00	2.00	1.00		2.00	3.00	1.00		1.00	2.00	1.00		1.00	1.92	0.08	
Final Sat.:	3200	3400	1600		3200	5100	1600		1600	3400	1600		1600	3169	131	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.16	0.07		0.03	0.27	0.11		0.12	0.31	0.21		0.12	0.19	0.20	
OvlAdjV/S:											0.15					
Crit Moves:	****					****				****			****			

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.620
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	1	1 0	0 1	1	0 0
Volume Module:												
Base Vol:	53	0	136	0	0	0	0	1160	156	118	500	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	0	136	0	0	0	0	1160	156	118	500	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	0	136	0	0	0	0	1160	156	118	500	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	0	136	0	0	0	0	1160	156	118	500	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	0	136	0	0	0	0	1160	156	118	500	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.76	0.24	0.38	1.62	0.00
Final Sat.:	1600	0	1600	0	0	0	0	2921	379	611	2689	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.09	0.00	0.00	0.00	0.00	0.40	0.41	0.07	0.19	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.560
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	1 0	1 0	0	0 1	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	1	0	2	253	0	51	37	1242	0	0	542	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	2	253	0	51	37	1242	0	0	542	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	2	253	0	51	37	1242	0	0	542	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	2	253	0	51	37	1242	0	0	542	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	0	2	253	0	51	37	1242	0	0	542	80
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1600	0	1600	1600	0	1600	1600	3400	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.03	0.02	0.37	0.00	0.00	0.16	0.05
Crit Moves:	****			****				****		****		

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.636
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	67	625	188	267	540	176	393	753	147	106	359	210
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:	67	625	188	267	540	176	393	753	147	106	359	210
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	625	188	267	540	176	393	753	147	106	359	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	625	188	267	540	176	393	753	147	106	359	210
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	625	188	267	540	176	393	753	147	106	359	210
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.31	0.69	1.00	2.26	0.74	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	1600	3890	1110	1600	3820	1180	3200	5100	1600	3200	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.17	0.17	0.14	0.15	0.12	0.15	0.09	0.03	0.11	0.13
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.418
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	8	2	10	62	3	106	174	1014	22	21	633	89
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:	8	2	10	62	3	106	174	1014	22	21	633	89
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:	8	2	10	62	3	106	174	1014	22	21	633	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	2	10	62	3	106	174	1014	22	21	633	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	2	10	62	3	106	174	1014	22	21	633	89
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.40	0.10	0.50	1.00	0.03	0.97	1.00	2.94	0.06	1.00	2.00	1.00
Final Sat.:	640	160	800	1600	44	1556	1600	4898	102	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.04	0.07	0.07	0.11	0.21	0.22	0.01	0.19	0.06
Crit Moves:	****				****		****				****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.832
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	0	1	1	0 2	1	0	1	0 2	0	1	1	0 2	0	1
Volume Module:																
Base Vol:	116	654	336		286	1266	206		123	1102	129		124	489	60	
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:	116	654	336		286	1266	206		123	1102	129		124	489	60	
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:	116	654	336		286	1266	206		123	1102	129		124	489	60	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	654	336		286	1266	206		123	1102	129		124	489	60	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	116	654	336		286	1266	206		123	1102	129		124	489	60	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.05	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.58	0.42		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3400	1600		1600	4328	672		1600	3400	1600		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.19	0.21		0.18	0.29	0.31		0.08	0.32	0.08		0.08	0.14	0.04	
Crit Moves:		****	****							****			****			

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.692
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	901	0	603	181	1173	0	0	888	510
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	901	0	603	181	1173	0	0	888	510
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	901	0	603	181	1173	0	0	888	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	901	0	603	181	1173	0	0	888	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	901	0	603	181	1173	0	0	888	0
OvlAdjVol:						422						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.28	0.00	0.38	0.11	0.23	0.00	0.00	0.26	0.00
OvlAdjV/S:						0.26						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
AM Peak Hour

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

Intersection #11 Maple St (NS) & Warner Ave (EW)

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: F[53.8]

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			
Rights:	Include			Include			Include				Include			
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 1	0	1	0	0 1	0	1	0
Volume Module:														
Base Vol:	1	7	33	21	12	38	22	1109		4	20	736		20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	1	7	33	21	12	38	22	1109		4	20	736		20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	1	7	33	21	12	38	22	1109		4	20	736		20
Reduct Vol:	0	0	0	0	0	0	0	0		0	0	0		0
FinalVolume:	1	7	33	21	12	38	22	1109		4	20	736		20
Critical Gap Module:														
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1569	1951	557	1388	1943	378	756	xxxx	xxxxx		1113	xxxx	xxxxx	
Potent Cap.:	76	65	479	104	66	625	864	xxxx	xxxxx		635	xxxx	xxxxx	
Move Cap.:	58	61	479	85	62	625	864	xxxx	xxxxx		635	xxxx	xxxxx	
Volume/Cap:	0.02	0.11	0.07	0.25	0.19	0.06	0.03	xxxx	xxxx		0.03	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx		10.9	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*		B	*	*	
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	205	xxxxx	xxxx	141	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	2.4	xxxxx	0.1	xxxx	xxxxx		0.1	xxxx	xxxxx	
Shrd ConDel:	xxxxx	26.9	xxxxx	xxxxx	53.8	xxxxx	9.3	xxxx	xxxxx		10.9	xxxx	xxxxx	
Shared LOS:	*	D	*	*	F	*	A	*	*		B	*	*	
ApproachDel:	26.9			53.8			xxxxxx				xxxxxx			
ApproachLOS:	D			F			*				*			

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

TRAFFIX WORKSHEETS

YEAR 2020 – WITHOUT PROJECT – PM

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	E	xxxxx	0.926	E	xxxxx	0.926	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	D	xxxxx	0.880	D	xxxxx	0.880	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	E	xxxxx	0.910	E	xxxxx	0.910	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	D	xxxxx	0.852	D	xxxxx	0.852	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	B	xxxxx	0.649	B	xxxxx	0.649	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.521	A	xxxxx	0.521	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	D	xxxxx	0.818	D	xxxxx	0.818	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	B	xxxxx	0.682	B	xxxxx	0.682	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	E	xxxxx	0.935	E	xxxxx	0.935	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.699	B	xxxxx	0.699	+ 0.000 V/C
# 11 Maple St (NS) & Warner Ave (EW	F	69.9	0.166	F	69.9	0.166	+ 0.000 D/V

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.926
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1	1	0 2	1	0
Volume Module:																
Base Vol:	107	1109	83		126	700	114		136	484	89		123	1545	125	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	107	1109	83		126	700	114		136	484	89		123	1545	125	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	107	1109	83		126	700	114		136	484	89		123	1545	125	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	107	1109	83		126	700	114		136	484	89		123	1545	125	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	107	1109	83		126	700	114		136	484	89		123	1545	125	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.03	1.00		1.00	1.04	1.00		1.00	1.06	1.00		1.00	1.05	1.00	
Lanes:	1.00	1.86	0.14		1.00	1.72	0.28		1.00	2.00	1.00		1.00	2.78	0.22	
Final Sat.:	1600	3077	223		1600	2852	448		1600	3400	1600		1600	4641	359	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.36	0.37		0.08	0.25	0.25		0.09	0.14	0.06		0.08	0.33	0.35	
Crit Moves:			****		****				****						****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.880
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	331	1290	210	147	473	238	187	914	137	134	1400	124
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:	331	1290	210	147	473	238	187	914	137	134	1400	124
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:	331	1290	210	147	473	238	187	914	137	134	1400	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	331	1290	210	147	473	238	187	914	137	134	1400	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	331	1290	210	147	473	238	187	914	137	134	1400	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.58	0.42	1.00	2.00	1.00	1.00	2.61	0.39	1.00	2.76	0.24
Final Sat.:	1600	4328	672	1600	3400	1600	1600	4374	626	1600	4609	391
Capacity Analysis Module:												
Vol/Sat:	0.21	0.30	0.31	0.09	0.14	0.15	0.12	0.21	0.22	0.08	0.30	0.32
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	125	Critical Vol./Cap.(X):	0.910
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 1	1	0
Volume Module:																
Base Vol:	98	499	266		31	337	99		173	1049	49		112	1359	77	
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:	98	499	266		31	337	99		173	1049	49		112	1359	77	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	98	499	266		31	337	99		173	1049	49		112	1359	77	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	98	499	266		31	337	99		173	1049	49		112	1359	77	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	98	499	266		31	337	99		173	1049	49		112	1359	77	
OvlAdjVol:			154													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.04	1.00		1.00	1.03	1.00		1.00	1.03	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.55	0.45		1.00	1.91	0.09		1.00	1.89	0.11	
Final Sat.:	1600	1700	1600		1600	2573	727		1600	3157	143		1600	3128	172	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.29	0.17		0.02	0.13	0.14		0.11	0.33	0.34		0.07	0.43	0.45	
OvlAdjV/S:			0.10													
Crit Moves:	****				****				****						****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.852
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Ovl				Include			
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	
Lanes:	2	0	2	0	1	2	0	3	0	1	1	0	2	0	1	1	0	1	1	0
Volume Module:																
Base Vol:	310	1153	174		138	668	182		169	853	124		176	926	105	
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:	310	1153	174		138	668	182		169	853	124		176	926	105	
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:	310	1153	174		138	668	182		169	853	124		176	926	105	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	310	1153	174		138	668	182		169	853	124		176	926	105	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	310	1153	174		138	668	182		169	853	124		176	926	105	
OvlAdjVol:											0					
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.03	1.00	
Lanes:	2.00	2.00	1.00		2.00	3.00	1.00		1.00	2.00	1.00		1.00	1.80	0.20	
Final Sat.:	3200	3400	1600		3200	5100	1600		1600	3400	1600		1600	2974	326	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.34	0.11		0.04	0.13	0.11		0.11	0.25	0.08		0.11	0.31	0.32	
OvlAdjV/S:											0.00					
Crit Moves:	****				****				****						****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.649
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 0	0	1	0	0 0	0	0	0	0 1	1	0	0	1 1	0	0
Volume Module:																
Base Vol:	120	0	337		0	0	0		0	819	73		176	1123	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	120	0	337		0	0	0		0	819	73		176	1123	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	120	0	337		0	0	0		0	819	73		176	1123	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	120	0	337		0	0	0		0	819	73		176	1123	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	120	0	337		0	0	0		0	819	73		176	1123	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.04	1.00	
Lanes:	1.00	0.00	1.00		0.00	0.00	0.00		0.00	1.84	0.16		0.27	1.73	0.00	
Final Sat.:	1600	0	1600		0	0	0		0	3038	262		434	2866	0	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.00	0.21		0.00	0.00	0.00		0.00	0.27	0.28		0.11	0.39	0.00	
Crit Moves:			****								****		****			

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	105	Critical Vol./Cap.(X):	0.521
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	25	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0 1	0	1 0	0 0	1	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	1	0	24	114	0	47	60	842	0	0	1189	297
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:	1	0	24	114	0	47	60	842	0	0	1189	297
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:	1	0	24	114	0	47	60	842	0	0	1189	297
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	24	114	0	47	60	842	0	0	1189	297
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	0	24	114	0	47	60	842	0	0	1189	297
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1600	0	1600	1600	0	1600	1600	3400	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.02	0.07	0.00	0.03	0.04	0.25	0.00	0.00	0.35	0.19
Crit Moves:			****	****			****				****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	150	746	146	290	468	313	354	668	49	122	1002	477
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:	150	746	146	290	468	313	354	668	49	122	1002	477
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:	150	746	146	290	468	313	354	668	49	122	1002	477
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	746	146	290	468	313	354	668	49	122	1002	477
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	150	746	146	290	468	313	354	668	49	122	1002	477
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.51	0.49	1.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	1600	4214	786	1600	3400	1600	3200	5100	1600	3200	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.18	0.19	0.18	0.14	0.20	0.11	0.13	0.03	0.04	0.29	0.30
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	19	5	25	127	1	97	140	1108	9	19	1477	149
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	5	25	127	1	97	140	1108	9	19	1477	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	5	25	127	1	97	140	1108	9	19	1477	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	5	25	127	1	97	140	1108	9	19	1477	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	5	25	127	1	97	140	1108	9	19	1477	149
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.39	0.10	0.51	1.00	0.01	0.99	1.00	2.98	0.02	1.00	2.00	1.00
Final Sat.:	620	163	816	1600	16	1584	1600	4961	39	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.08	0.06	0.06	0.09	0.22	0.23	0.01	0.43	0.09
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.935
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	121	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	241	1322	412	90	686	132	246	734	87	233	1000	114
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:	241	1322	412	90	686	132	246	734	87	233	1000	114
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:	241	1322	412	90	686	132	246	734	87	233	1000	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	1322	412	90	686	132	246	734	87	233	1000	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	1322	412	90	686	132	246	734	87	233	1000	114
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.52	0.48	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4225	775	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.39	0.26	0.06	0.16	0.17	0.15	0.22	0.05	0.15	0.29	0.07
Crit Moves:	****			****			****				****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.699
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	449	0	503	301	1175	0	0	1118	414
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	449	0	503	301	1175	0	0	1118	414
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	449	0	503	301	1175	0	0	1118	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	449	0	503	301	1175	0	0	1118	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	449	0	503	301	1175	0	0	1118	0
OvlAdjVol:						202						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.31	0.19	0.23	0.00	0.00	0.33	0.00
OvlAdjV/S:						0.13						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Project Opening Year 2020 Without Project
PM Peak Hour

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

Intersection #11 Maple St (NS) & Warner Ave (EW)

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: F[69.9]

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		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 1 0 1 0			0 1 0 1 0		
Volume Module:												
Base Vol:	8	3	10	2	2	22	68	950	17	11	1195	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	3	10	2	2	22	68	950	17	11	1195	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	3	10	2	2	22	68	950	17	11	1195	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	3	10	2	2	22	68	950	17	11	1195	20
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1715	2332	484	1840	2330	608	1215	xxxx	xxxxx	967	xxxx	xxxxx
Potent Cap.:	59	37	535	48	38	444	581	xxxx	xxxxx	720	xxxx	xxxxx
Move Cap.:	48	32	535	39	32	444	581	xxxx	xxxxx	720	xxxx	xxxxx
Volume/Cap:	0.17	0.09	0.02	0.05	0.06	0.05	0.12	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.0	xxxx	xxxxx	10.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	76	xxxxx	xxxx	160	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.0	xxxxx	xxxxx	0.6	xxxxx	0.4	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	69.9	xxxxx	xxxxx	31.8	xxxxx	12.0	xxxx	xxxxx	10.1	xxxx	xxxxx
Shared LOS:	*	F	*	*	D	*	B	*	*	B	*	*
ApproachDel:		69.9			31.8		xxxxxx			xxxxxx		
ApproachLOS:		F			D		*			*		

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

TRAFFIX WORKSHEETS

YEAR 2020 – CONSTRUCTION – AM

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	D	xxxxx	0.871	D	xxxxx	0.871	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	C	xxxxx	0.788	C	xxxxx	0.788	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	D	xxxxx	0.809	D	xxxxx	0.809	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	C	xxxxx	0.752	C	xxxxx	0.752	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	B	xxxxx	0.620	B	xxxxx	0.620	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.560	A	xxxxx	0.560	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	B	xxxxx	0.636	B	xxxxx	0.636	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.418	A	xxxxx	0.418	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	D	xxxxx	0.832	D	xxxxx	0.832	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.692	B	xxxxx	0.692	+ 0.000 V/C
# 11 Maple Street (NS) & Warner Ave	F	52.6	0.211	F	52.6	0.211	+ 0.000 D/V

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.871
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	101	652	86	216	1100	82	60	1114	159	111	740	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	652	86	216	1100	82	60	1114	159	111	740	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	652	86	216	1100	82	60	1114	159	111	740	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	652	86	216	1100	82	60	1114	159	111	740	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	652	86	216	1100	82	60	1114	159	111	740	75
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.77	0.23	1.00	1.86	0.14	1.00	2.00	1.00	1.00	2.72	0.28
Final Sat.:	1600	2927	373	1600	3078	222	1600	3400	1600	1600	4558	442
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.23	0.14	0.36	0.37	0.04	0.33	0.10	0.07	0.16	0.17
Crit Moves:	****					****		****		****		

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.788
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	87	490	112	180	1016	240	256	1334	168	187	639	111
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:	87	490	112	180	1016	240	256	1334	168	187	639	111
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:	87	490	112	180	1016	240	256	1334	168	187	639	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	490	112	180	1016	240	256	1334	168	187	639	111
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	87	490	112	180	1016	240	256	1334	168	187	639	111
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.44	0.56	1.00	2.43	0.57	1.00	2.66	0.34	1.00	2.56	0.44
Final Sat.:	1600	4107	893	1600	4083	917	1600	4463	537	1600	4290	710
Capacity Analysis Module:												
Vol/Sat:	0.05	0.12	0.13	0.11	0.25	0.26	0.16	0.30	0.31	0.12	0.15	0.16
Crit Moves:	****					****			****	****		

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 1	1	0
Volume Module:																
Base Vol:	55	258	246		72	353	38		67	1415	80		166	731	39	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	55	258	246		72	353	38		67	1415	80		166	731	39	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	55	258	246		72	353	38		67	1415	80		166	731	39	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	55	258	246		72	353	38		67	1415	80		166	731	39	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	55	258	246		72	353	38		67	1415	80		166	731	39	
OvlAdjVol:			80													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.03	1.00		1.00	1.03	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.81	0.19		1.00	1.89	0.11		1.00	1.90	0.10	
Final Sat.:	1600	1700	1600		1600	2989	311		1600	3129	171		1600	3138	162	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.15	0.15		0.05	0.12	0.12		0.04	0.45	0.47		0.10	0.23	0.24	
OvlAdjV/S:			0.05													
Crit Moves:	****				****						****		****			

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.752
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	1 0	2 0	1	0 1	0 1	0
Volume Module:												
Base Vol:	192	559	114	93	1364	180	195	1037	332	195	607	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	192	559	114	93	1364	180	195	1037	332	195	607	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	192	559	114	93	1364	180	195	1037	332	195	607	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	192	559	114	93	1364	180	195	1037	332	195	607	26
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	192	559	114	93	1364	180	195	1037	332	195	607	26
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	0.47	1.47	0.06
Final Sat.:	3200	3400	1600	3200	5100	1600	1600	3400	1600	754	2346	100
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.07	0.03	0.27	0.11	0.12	0.31	0.21	0.12	0.26	0.26
Crit Moves:	****				****		****				****	

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.620
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	1	1 0	0 1	0	0 0
Volume Module:												
Base Vol:	53	0	136	0	0	0	0	1160	156	118	500	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	0	136	0	0	0	0	1160	156	118	500	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	53	0	136	0	0	0	0	1160	156	118	500	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	0	136	0	0	0	0	1160	156	118	500	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	0	136	0	0	0	0	1160	156	118	500	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.76	0.24	0.19	0.81	0.00
Final Sat.:	1600	0	1600	0	0	0	0	2921	379	306	1294	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.09	0.00	0.00	0.00	0.00	0.40	0.41	0.07	0.39	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.560
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 0	1	0	1	0 0	0	1	1	0 2	0	0	0	0 1	0	1
Volume Module:																
Base Vol:	1	0	2		253	0	51		37	1242	0		0	542		80
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
Initial Bse:	1	0	2		253	0	51		37	1242	0		0	542		80
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
PHF Volume:	1	0	2		253	0	51		37	1242	0		0	542		80
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0		0
Reduced Vol:	1	0	2		253	0	51		37	1242	0		0	542		80
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
FinalVolume:	1	0	2		253	0	51		37	1242	0		0	542		80
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600		1600
Adjustment:	1.00	1.00	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06		1.00
Lanes:	1.00	0.00	1.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	1.00		1.00
Final Sat.:	1600	0	1600		1600	0	1600		1600	3400	0		0	1700		1600
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.16	0.00	0.03		0.02	0.37	0.00		0.00	0.32		0.05
Crit Moves:	****				****					****			****			

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.636
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	2	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	67	625	188	267	540	176	393	753	147	106	359	210
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:	67	625	188	267	540	176	393	753	147	106	359	210
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	67	625	188	267	540	176	393	753	147	106	359	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	625	188	267	540	176	393	753	147	106	359	210
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	625	188	267	540	176	393	753	147	106	359	210
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.31	0.69	1.00	2.26	0.74	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1600	3890	1110	1600	3820	1180	3200	3400	1600	3200	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.17	0.17	0.14	0.15	0.12	0.22	0.09	0.03	0.11	0.13
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.418
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	8	2	10	62	3	106	174	1014	22	21	633	89
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:	8	2	10	62	3	106	174	1014	22	21	633	89
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:	8	2	10	62	3	106	174	1014	22	21	633	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	2	10	62	3	106	174	1014	22	21	633	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	2	10	62	3	106	174	1014	22	21	633	89
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.40	0.10	0.50	1.00	0.03	0.97	1.00	2.94	0.06	1.00	2.00	1.00
Final Sat.:	640	160	800	1600	44	1556	1600	4898	102	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.04	0.07	0.07	0.11	0.21	0.22	0.01	0.19	0.06
Crit Moves:	****				****		****				****	

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.832
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	116	654	336	286	1266	206	123	1102	129	124	489	60
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:	116	654	336	286	1266	206	123	1102	129	124	489	60
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:	116	654	336	286	1266	206	123	1102	129	124	489	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	654	336	286	1266	206	123	1102	129	124	489	60
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	116	654	336	286	1266	206	123	1102	129	124	489	60
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.58	0.42	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4328	672	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.19	0.21	0.18	0.29	0.31	0.08	0.32	0.08	0.08	0.14	0.04
Crit Moves:			****	****				****		****		

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.692
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	901	0	603	181	1173	0	0	888	510
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	901	0	603	181	1173	0	0	888	510
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	901	0	603	181	1173	0	0	888	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	901	0	603	181	1173	0	0	888	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	901	0	603	181	1173	0	0	888	0
OvlAdjVol:						422						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.28	0.00	0.38	0.11	0.23	0.00	0.00	0.26	0.00
OvlAdjV/S:						0.26						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

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

Intersection #11 Maple Street (NS) & Warner Avenue (EW)

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: F[52.6]

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		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 1 0 1 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	1	7	33	21	12	38	22	1109	4	20	736	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	7	33	21	12	38	22	1109	4	20	736	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	7	33	21	12	38	22	1109	4	20	736	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	7	33	21	12	38	22	1109	4	20	736	20
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1966	1951	557	1388	1943	746	756	xxxx	xxxxx	1113	xxxx	xxxxx
Potent Cap.:	48	65	534	121	66	417	864	xxxx	xxxxx	635	xxxx	xxxxx
Move Cap.:	35	61	534	99	62	417	864	xxxx	xxxxx	635	xxxx	xxxxx
Volume/Cap:	0.03	0.11	0.06	0.21	0.19	0.09	0.03	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx	10.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	201	xxxxx	xxxx	143	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	2.3	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	27.5	xxxxx	xxxxx	52.6	xxxxx	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	F	*	A	*	*	*	*	*
ApproachDel:	27.5			52.6			xxxxxx			xxxxxx		
ApproachLOS:	D			F			*			*		

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

TRAFFIX WORKSHEETS

YEAR 2020 – CONSTRUCTION – PM

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	E	xxxxx	0.926	E	xxxxx	0.926	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	D	xxxxx	0.880	D	xxxxx	0.880	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	E	xxxxx	0.911	E	xxxxx	0.911	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	E	xxxxx	0.909	E	xxxxx	0.909	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	F	xxxxx	1.072	F	xxxxx	1.072	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	D	xxxxx	0.860	D	xxxxx	0.860	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	D	xxxxx	0.821	D	xxxxx	0.821	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	B	xxxxx	0.682	B	xxxxx	0.682	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	E	xxxxx	0.935	E	xxxxx	0.935	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.693	B	xxxxx	0.693	+ 0.000 V/C
# 11 Maple Street (NS) & Warner Ave	F	160.4	0.397	F	160.4	0.397	+ 0.000 D/V

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.926
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	107	1109	83	126	700	114	136	484	89	123	1545	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	1109	83	126	700	114	136	484	89	123	1545	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	107	1109	83	126	700	114	136	484	89	123	1545	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	1109	83	126	700	114	136	484	89	123	1545	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	107	1109	83	126	700	114	136	484	89	123	1545	125
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.86	0.14	1.00	1.72	0.28	1.00	2.00	1.00	1.00	2.78	0.22
Final Sat.:	1600	3077	223	1600	2852	448	1600	3400	1600	1600	4641	359
Capacity Analysis Module:												
Vol/Sat:	0.07	0.36	0.37	0.08	0.25	0.25	0.09	0.14	0.06	0.08	0.33	0.35
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.880
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0
Volume Module:																
Base Vol:	331	1290	210		147	473	238		187	914	137		134	1400	124	
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:	331	1290	210		147	473	238		187	914	137		134	1400	124	
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:	331	1290	210		147	473	238		187	914	137		134	1400	124	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	331	1290	210		147	473	238		187	914	137		134	1400	124	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	331	1290	210		147	473	238		187	914	137		134	1400	124	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.05	1.00		1.00	1.06	1.00		1.00	1.05	1.00		1.00	1.05	1.00	
Lanes:	1.00	2.58	0.42		1.00	2.00	1.00		1.00	2.61	0.39		1.00	2.76	0.24	
Final Sat.:	1600	4328	672		1600	3400	1600		1600	4374	626		1600	4609	391	
Capacity Analysis Module:																
Vol/Sat:	0.21	0.30	0.31		0.09	0.14	0.15		0.12	0.21	0.22		0.08	0.30	0.32	
Crit Moves:			****		****					****					****	

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.911
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
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
Lanes:	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	98	499	266	31	337	99	173	1049	49	112	1359	77
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:	98	499	266	31	337	99	173	1049	49	112	1359	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	499	266	31	337	99	173	1049	49	112	1359	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	499	266	31	337	99	173	1049	49	112	1359	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	499	266	31	337	99	173	1049	49	112	1359	77
OvlAdjVol:			154									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.03	1.00
Lanes:	1.00	1.00	1.00	1.00	1.55	0.45	1.00	1.91	0.09	1.00	1.89	0.11
Final Sat.:	1600	1700	1600	1600	2573	727	1600	3157	143	1600	3128	172
Capacity Analysis Module:												
Vol/Sat:	0.06	0.29	0.17	0.02	0.13	0.14	0.11	0.33	0.34	0.07	0.43	0.45
OvlAdjV/S:			0.10									
Crit Moves:	****			****			****					****

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.909
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	96	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	1 0	2 0	1	0 1	0 1	0
Volume Module:												
Base Vol:	310	1153	174	138	668	182	169	853	124	176	926	105
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:	310	1153	174	138	668	182	169	853	124	176	926	105
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:	310	1153	174	138	668	182	169	853	124	176	926	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	1153	174	138	668	182	169	853	124	176	926	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	310	1153	174	138	668	182	169	853	124	176	926	105
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	0.29	1.54	0.17
Final Sat.:	3200	3400	1600	3200	5100	1600	1600	3400	1600	467	2455	278
Capacity Analysis Module:												
Vol/Sat:	0.10	0.34	0.11	0.04	0.13	0.11	0.11	0.25	0.08	0.11	0.38	0.38
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	1.072
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 0	0	1	0	0 0	0	0	0	0 1	1	0	0	1 0	0	0
Volume Module:																
Base Vol:	120	0	337		0	0	0		0	819	73		176	1123	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	120	0	337		0	0	0		0	819	73		176	1123	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	120	0	337		0	0	0		0	819	73		176	1123	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	120	0	337		0	0	0		0	819	73		176	1123	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	120	0	337		0	0	0		0	819	73		176	1123	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.00	1.00	
Lanes:	1.00	0.00	1.00		0.00	0.00	0.00		0.00	1.84	0.16		0.14	0.86	0.00	
Final Sat.:	1600	0	1600		0	0	0		0	3038	262		217	1383	0	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.00	0.21		0.00	0.00	0.00		0.00	0.27	0.28		0.11	0.81	0.00	
Crit Moves:			****							****				****		

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.860
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0 1	0	1 0	0 0	1	1 0	2 0	0	0 0	1 0	1
Volume Module:												
Base Vol:	1	0	24	114	0	47	60	842	0	0	1189	297
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:	1	0	24	114	0	47	60	842	0	0	1189	297
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:	1	0	24	114	0	47	60	842	0	0	1189	297
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	0	24	114	0	47	60	842	0	0	1189	297
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	0	24	114	0	47	60	842	0	0	1189	297
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.00	1.00
Final Sat.:	1600	0	1600	1600	0	1600	1600	3400	0	0	1700	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.02	0.07	0.00	0.03	0.04	0.25	0.00	0.00	0.70	0.19
Crit Moves:			****	****			****				****	

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.821
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	2	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	150	746	146	290	468	313	354	668	49	122	1002	477
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:	150	746	146	290	468	313	354	668	49	122	1002	477
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:	150	746	146	290	468	313	354	668	49	122	1002	477
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	746	146	290	468	313	354	668	49	122	1002	477
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	150	746	146	290	468	313	354	668	49	122	1002	477
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.51	0.49	1.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1600	4214	786	1600	3400	1600	3200	3400	1600	3200	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.18	0.19	0.18	0.14	0.20	0.11	0.20	0.03	0.04	0.29	0.30
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	35	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	19	5	25	127	1	97	140	1108	9	19	1477	149
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	5	25	127	1	97	140	1108	9	19	1477	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	5	25	127	1	97	140	1108	9	19	1477	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	5	25	127	1	97	140	1108	9	19	1477	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	5	25	127	1	97	140	1108	9	19	1477	149
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.39	0.10	0.51	1.00	0.01	0.99	1.00	2.98	0.02	1.00	2.00	1.00
Final Sat.:	620	163	816	1600	16	1584	1600	4961	39	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.08	0.06	0.06	0.09	0.22	0.23	0.01	0.43	0.09
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.935
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	121	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	241	1322	412	90	686	132	246	734	87	233	1000	114
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:	241	1322	412	90	686	132	246	734	87	233	1000	114
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:	241	1322	412	90	686	132	246	734	87	233	1000	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	1322	412	90	686	132	246	734	87	233	1000	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	1322	412	90	686	132	246	734	87	233	1000	114
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.52	0.48	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4225	775	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.39	0.26	0.06	0.16	0.17	0.15	0.22	0.05	0.15	0.29	0.07
Crit Moves:	****			****			****				****	

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.693
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	449	0	503	301	1175	0	0	1118	414
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	449	0	503	301	1175	0	0	1118	414
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	449	0	503	301	1175	0	0	1118	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	449	0	503	301	1175	0	0	1118	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	449	0	503	301	1175	0	0	1118	0
OvlAdjVol:						202						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.31	0.19	0.23	0.00	0.00	0.33	0.00
OvlAdjV/S:						0.13						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Year 2020 - Project Construction Analysis
AM Peak Hour

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

Intersection #11 Maple Street (NS) & Warner Avenue (EW)

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: F[160.4]

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		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 1 0 1 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	8	3	10	2	2	22	68	950	17	11	1195	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	3	10	2	2	22	68	950	17	11	1195	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	3	10	2	2	22	68	950	17	11	1195	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	3	10	2	2	22	68	950	17	11	1195	20
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2334	2332	484	1840	2330	1205	1215	xxxx	xxxxx	967	xxxx	xxxxx
Potent Cap.:	26	37	587	59	38	226	581	xxxx	xxxxx	720	xxxx	xxxxx
Move Cap.:	20	32	587	48	32	226	581	xxxx	xxxxx	720	xxxx	xxxxx
Volume/Cap:	0.40	0.09	0.02	0.04	0.06	0.10	0.12	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.0	xxxx	xxxxx	10.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	41	xxxxx	xxxx	130	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.8	xxxxx	xxxxx	0.7	xxxxx	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	160	xxxxx	xxxxx	39.6	xxxxx	12.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	E	*	B	*	*	*	*	*
ApproachDel:	160.4			39.6			xxxxxx			xxxxxx		
ApproachLOS:	F			E			*			*		

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

TRAFFIX WORKSHEETS

YEAR 2020 – WITH PROJECT – AM

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Main St (NS) & Edinger Ave (EW	D	xxxxx	0.866	D	xxxxx	0.866	+ 0.000
# 2 S Grand Ave (NS) & E Edinger A	C	xxxxx	0.788	C	xxxxx	0.788	+ 0.000
# 3 S Flower St (NS) & W Warner Av	D	xxxxx	0.828	D	xxxxx	0.828	+ 0.000
# 4 Main St (NS) & Warner Ave (EW)	C	xxxxx	0.741	C	xxxxx	0.741	+ 0.000
# 5 Halladay St (NS) & E Warner Av	A	xxxxx	0.517	A	xxxxx	0.517	+ 0.000
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.555	A	xxxxx	0.555	+ 0.000
# 7 S Grand Ave (NS) & E Warner Av	B	xxxxx	0.634	B	xxxxx	0.634	+ 0.000
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.383	A	xxxxx	0.383	+ 0.000
# 9 Main St (NS) & Dyer Rd (EW)	D	xxxxx	0.825	D	xxxxx	0.825	+ 0.000
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.698	B	xxxxx	0.698	+ 0.000
# 11 Maple Street (NS) & Warner Ave	A	xxxxx	0.354	A	xxxxx	0.354	+ 0.000

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.866
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1	1	0 2	1	0
Volume Module:																
Base Vol:	91	635	78		213	1110	80		64	1110	162		111	712	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:	91	635	78		213	1110	80		64	1110	162		111	712	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:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	91	635	78		213	1110	80		64	1110	162		111	712	79	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	91	635	78		213	1110	80		64	1110	162		111	712	79	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	91	635	78		213	1110	80		64	1110	162		111	712	79	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.04	1.00		1.00	1.03	1.00		1.00	1.06	1.00		1.00	1.05	1.00	
Lanes:	1.00	1.78	0.22		1.00	1.87	0.13		1.00	2.00	1.00		1.00	2.70	0.30	
Final Sat.:	1600	2950	350		1600	3085	215		1600	3400	1600		1600	4521	479	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.22	0.22		0.13	0.36	0.37		0.04	0.33	0.10		0.07	0.16	0.16	
Crit Moves:	****						****			****			****			

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.788
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0
Volume Module:																
Base Vol:	84	485	111		185	1021	239		257	1344	166		187	633	113	
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:	84	485	111		185	1021	239		257	1344	166		187	633	113	
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:	84	485	111		185	1021	239		257	1344	166		187	633	113	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	84	485	111		185	1021	239		257	1344	166		187	633	113	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	84	485	111		185	1021	239		257	1344	166		187	633	113	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.05	1.00		1.00	1.05	1.00		1.00	1.05	1.00		1.00	1.05	1.00	
Lanes:	1.00	2.44	0.56		1.00	2.43	0.57		1.00	2.67	0.33		1.00	2.55	0.45	
Final Sat.:	1600	4106	894		1600	4090	910		1600	4472	528		1600	4273	727	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.12	0.12		0.12	0.25	0.26		0.16	0.30	0.31		0.12	0.15	0.16	
Crit Moves:	****						****				****	****				

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	48	252	254		77	340	35		65	1462	74		176	734	44	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	48	252	254		77	340	35		65	1462	74		176	734	44	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	48	252	254		77	340	35		65	1462	74		176	734	44	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	48	252	254		77	340	35		65	1462	74		176	734	44	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	48	252	254		77	340	35		65	1462	74		176	734	44	
OvlAdjVol:			78													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.03	1.00		1.00	1.06	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.81	0.19		1.00	1.90	0.10		1.00	2.00	1.00	
Final Sat.:	1600	1700	1600		1600	3001	299		1600	3146	154		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.15	0.16		0.05	0.11	0.12		0.04	0.46	0.48		0.11	0.22	0.03	
OvlAdjV/S:			0.05													
Crit Moves:		****				****					****		****			

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Ovl				Include			
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	
Lanes:	2	0 2	0	1	2	0 3	0	1	2	0 2	0	1	2	0 3	0	1
Volume Module:																
Base Vol:	186	544	133		118	1364	190		261	1062	293		190	623	27	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	186	544	133		118	1364	190		261	1062	293		190	623	27	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	186	544	133		118	1364	190		261	1062	293		190	623	27	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	186	544	133		118	1364	190		261	1062	293		190	623	27	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	186	544	133		118	1364	190		261	1062	293		190	623	27	
OvlAdjVol:											200					
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	2.00	2.00	1.00		2.00	3.00	1.00		2.00	2.00	1.00		2.00	3.00	1.00	
Final Sat.:	3200	3400	1600		3200	5100	1600		3200	3400	1600		3200	5100	1600	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.16	0.08		0.04	0.27	0.12		0.08	0.31	0.18		0.06	0.12	0.02	
OvlAdjV/S:											0.13					
Crit Moves:	****					****				****			****			

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.517
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	24	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	50	0	142	0	0	0	0	1186	158	157	503	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	0	142	0	0	0	0	1186	158	157	503	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	0	142	0	0	0	0	1186	158	157	503	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	0	142	0	0	0	0	1186	158	157	503	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	0	142	0	0	0	0	1186	158	157	503	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.65	0.35	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4436	564	1600	5100	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.09	0.00	0.00	0.00	0.00	0.27	0.28	0.10	0.10	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.555
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1 0	1	0	1 0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	6	2	4	405	2	39	101	1140	13	38	559	94
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	2	4	405	2	39	101	1140	13	38	559	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	2	4	405	2	39	101	1140	13	38	559	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	2	4	405	2	39	101	1140	13	38	559	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	2	4	405	2	39	101	1140	13	38	559	94
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	1.00	1.00	0.99	0.01	1.00	1.00	2.97	0.03	1.00	2.57	0.43
Final Sat.:	1600	1700	1600	1592	8	1600	1600	4946	54	1600	4309	691
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.25	0.25	0.02	0.06	0.23	0.24	0.02	0.13	0.14
Crit Moves:	****			****					****	****		

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.634
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	1	0	1	0 2	1	0	2	0 3	0	1	2	0 3	0	1
Volume Module:																
Base Vol:	73	617	200		253	540	172		436	804	166		114	376	198	
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:	73	617	200		253	540	172		436	804	166		114	376	198	
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:	73	617	200		253	540	172		436	804	166		114	376	198	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	73	617	200		253	540	172		436	804	166		114	376	198	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	73	617	200		253	540	172		436	804	166		114	376	198	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.05	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	2.27	0.73		1.00	2.28	0.72		2.00	3.00	1.00		2.00	3.00	1.00	
Final Sat.:	1600	3825	1175		1600	3840	1160		3200	5100	1600		3200	5100	1600	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.16	0.17		0.16	0.14	0.15		0.14	0.16	0.10		0.04	0.07	0.12	
Crit Moves:			****		****				****						****	

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.383
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	20	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	8	3	10	62	3	106	182	1041	22	21	644	93
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:	8	3	10	62	3	106	182	1041	22	21	644	93
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:	8	3	10	62	3	106	182	1041	22	21	644	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	3	10	62	3	106	182	1041	22	21	644	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	3	10	62	3	106	182	1041	22	21	644	93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	0.38	0.14	0.48	1.00	0.03	0.97	1.00	2.94	0.06	1.00	2.62	0.38
Final Sat.:	610	229	762	1600	44	1556	1600	4901	99	1600	4394	606
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.04	0.07	0.07	0.11	0.21	0.22	0.01	0.15	0.15
Crit Moves:	****			****			****				****	

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.825
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	116	654	340	271	1253	191	119	1076	131	136	505	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	654	340	271	1253	191	119	1076	131	136	505	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	654	340	271	1253	191	119	1076	131	136	505	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	654	340	271	1253	191	119	1076	131	136	505	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	116	654	340	271	1253	191	119	1076	131	136	505	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.60	0.40	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4365	635	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.19	0.21	0.17	0.29	0.30	0.07	0.32	0.08	0.09	0.15	0.04
Crit Moves:			****	****				****		****		

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.698
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	937	0	610	170	1155	0	0	895	503
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	937	0	610	170	1155	0	0	895	503
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	937	0	610	170	1155	0	0	895	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	937	0	610	170	1155	0	0	895	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	937	0	610	170	1155	0	0	895	0
OvlAdjVol:						440						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.29	0.00	0.38	0.11	0.23	0.00	0.00	0.26	0.00
OvlAdjV/S:						0.27						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Maple Street (NS) & Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.354
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	0	1! 0	1	0	2 1 0	1	0	2 1 0
Volume Module:												
Base Vol:	4	15	31	45	14	38	98	1011	5	53	708	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:	4	15	31	45	14	38	98	1011	5	53	708	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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	15	31	45	14	38	98	1011	5	53	708	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	15	31	45	14	38	98	1011	5	53	708	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	15	31	45	14	38	98	1011	5	53	708	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	0.08	0.30	0.62	0.47	0.14	0.39	1.00	2.99	0.01	1.00	2.94	0.06
Final Sat.:	128	480	992	742	231	627	1600	4976	24	1600	4900	100
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.03	0.03	0.06	0.06	0.06	0.20	0.21	0.03	0.14	0.15
Crit Moves:		****		****					****	****		

TRAFFIX WORKSHEETS

YEAR 2020 – WITH PROJECT – PM

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Main St (NS) & Edinger Ave (EW	E	xxxxx	0.931	E	xxxxx	0.931	+ 0.000
# 2 S Grand Ave (NS) & E Edinger A	D	xxxxx	0.884	D	xxxxx	0.884	+ 0.000
# 3 S Flower St (NS) & W Warner Av	D	xxxxx	0.870	D	xxxxx	0.870	+ 0.000
# 4 Main St (NS) & Warner Ave (EW)	C	xxxxx	0.710	C	xxxxx	0.710	+ 0.000
# 5 Halladay St (NS) & E Warner Av	A	xxxxx	0.574	A	xxxxx	0.574	+ 0.000
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.595	A	xxxxx	0.595	+ 0.000
# 7 S Grand Ave (NS) & E Warner Av	C	xxxxx	0.767	C	xxxxx	0.767	+ 0.000
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.596	A	xxxxx	0.596	+ 0.000
# 9 Main St (NS) & Dyer Rd (EW)	E	xxxxx	0.937	E	xxxxx	0.937	+ 0.000
# 10 S Grand Ave (NS) & E Dyer Rd (	C	xxxxx	0.701	C	xxxxx	0.701	+ 0.000
# 11 Maple Street (NS) & Warner Ave	A	xxxxx	0.418	A	xxxxx	0.418	+ 0.000

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.931
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	118	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	101	1108	84	130	683	108	132	480	83	127	1563	134
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:	101	1108	84	130	683	108	132	480	83	127	1563	134
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:	101	1108	84	130	683	108	132	480	83	127	1563	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	1108	84	130	683	108	132	480	83	127	1563	134
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	1108	84	130	683	108	132	480	83	127	1563	134
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.86	0.14	1.00	1.73	0.27	1.00	2.00	1.00	1.00	2.76	0.24
Final Sat.:	1600	3074	226	1600	2863	437	1600	3400	1600	1600	4621	379
Capacity Analysis Module:												
Vol/Sat:	0.06	0.36	0.37	0.08	0.24	0.25	0.08	0.14	0.05	0.08	0.34	0.35
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.884
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	307	1277	203	159	475	247	194	923	129	127	1372	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	307	1277	203	159	475	247	194	923	129	127	1372	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	307	1277	203	159	475	247	194	923	129	127	1372	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	1277	203	159	475	247	194	923	129	127	1372	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	307	1277	203	159	475	247	194	923	129	127	1372	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.59	0.41	1.00	2.00	1.00	1.00	2.63	0.37	1.00	2.74	0.26
Final Sat.:	1600	4342	658	1600	3400	1600	1600	4411	589	1600	4585	415
Capacity Analysis Module:												
Vol/Sat:	0.19	0.29	0.31	0.10	0.14	0.15	0.12	0.21	0.22	0.08	0.30	0.31
Crit Moves:		****		****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	125	Critical Vol./Cap.(X):	0.870
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	82	492	271		34	331	90		171	1065	44		125	1402	94	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	82	492	271		34	331	90		171	1065	44		125	1402	94	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	82	492	271		34	331	90		171	1065	44		125	1402	94	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	82	492	271		34	331	90		171	1065	44		125	1402	94	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	82	492	271		34	331	90		171	1065	44		125	1402	94	
OvlAdjVol:			146													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.04	1.00		1.00	1.03	1.00		1.00	1.06	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.57	0.43		1.00	1.92	0.08		1.00	2.00	1.00	
Final Sat.:	1600	1700	1600		1600	2616	684		1600	3173	127		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.29	0.17		0.02	0.13	0.13		0.11	0.34	0.35		0.08	0.41	0.06	
OvlAdjV/S:			0.09													
Crit Moves:	****				****				****				****			

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	2 0	2 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	304	1174	153	123	662	182	244	767	132	188	999	118
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:	304	1174	153	123	662	182	244	767	132	188	999	118
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:	304	1174	153	123	662	182	244	767	132	188	999	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	304	1174	153	123	662	182	244	767	132	188	999	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	304	1174	153	123	662	182	244	767	132	188	999	118
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	3400	1600	3200	5100	1600	3200	3400	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.35	0.10	0.04	0.13	0.11	0.08	0.23	0.08	0.06	0.20	0.07
OvlAdjV/S:									0.00			
Crit Moves:	****			****				****		****		

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.574
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	121	0	338	0	0	0	0	831	70	200	1324	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	0	338	0	0	0	0	831	70	200	1324	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	121	0	338	0	0	0	0	831	70	200	1324	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	0	338	0	0	0	0	831	70	200	1324	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	0	338	0	0	0	0	831	70	200	1324	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.77	0.23	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4627	373	1600	5100	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.21	0.00	0.00	0.00	0.00	0.18	0.19	0.13	0.26	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	105	Critical Vol./Cap.(X):	0.595
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1 0	1	0	1 0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	2	0	34	207	3	34	78	782	2	18	1392	278
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:	2	0	34	207	3	34	78	782	2	18	1392	278
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:	2	0	34	207	3	34	78	782	2	18	1392	278
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	0	34	207	3	34	78	782	2	18	1392	278
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	0	34	207	3	34	78	782	2	18	1392	278
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	1.00	1.00	0.99	0.01	1.00	1.00	2.99	0.01	1.00	2.50	0.50
Final Sat.:	1600	1700	1600	1577	23	1600	1600	4988	12	1600	4201	799
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.02	0.13	0.13	0.02	0.05	0.16	0.16	0.01	0.33	0.35
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.767
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	2 0	3 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	186	730	152	269	453	344	360	699	53	119	1112	418
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:	186	730	152	269	453	344	360	699	53	119	1112	418
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:	186	730	152	269	453	344	360	699	53	119	1112	418
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	730	152	269	453	344	360	699	53	119	1112	418
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	186	730	152	269	453	344	360	699	53	119	1112	418
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.48	0.52	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	4173	827	1600	3400	1600	3200	5100	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.17	0.18	0.17	0.13	0.22	0.11	0.14	0.03	0.04	0.22	0.26
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	19	5	25	128	1	97	138	1128	9	19	1527	151
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	5	25	128	1	97	138	1128	9	19	1527	151
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	5	25	128	1	97	138	1128	9	19	1527	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	5	25	128	1	97	138	1128	9	19	1527	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	5	25	128	1	97	138	1128	9	19	1527	151
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	0.39	0.10	0.51	1.00	0.01	0.99	1.00	2.98	0.02	1.00	2.73	0.27
Final Sat.:	620	163	816	1600	16	1584	1600	4962	38	1600	4568	432
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.08	0.06	0.06	0.09	0.23	0.24	0.01	0.33	0.35
Crit Moves:	****			****			****					****

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.937
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	124	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	241	1330	437	97	693	133	237	745	83	234	1003	115
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:	241	1330	437	97	693	133	237	745	83	234	1003	115
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:	241	1330	437	97	693	133	237	745	83	234	1003	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	1330	437	97	693	133	237	745	83	234	1003	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	1330	437	97	693	133	237	745	83	234	1003	115
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.52	0.48	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4227	773	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.15	0.39	0.27	0.06	0.16	0.17	0.15	0.22	0.05	0.15	0.30	0.07
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.701
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	461	0	496	308	1168	0	0	1097	435
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	461	0	496	308	1168	0	0	1097	435
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	461	0	496	308	1168	0	0	1097	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	461	0	496	308	1168	0	0	1097	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	461	0	496	308	1168	0	0	1097	0
OvlAdjVol:						188						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.31	0.19	0.23	0.00	0.00	0.32	0.00
OvlAdjV/S:						0.12						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Maple Street (NS) & Warner Avenue (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.418
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	0	1! 0	1	0	2 1	0	1	0 2 1 0
Volume Module:												
Base Vol:	12	12	15	18	8	24	126	872	19	23	1192	11
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	12	15	18	8	24	126	872	19	23	1192	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	12	15	18	8	24	126	872	19	23	1192	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	12	15	18	8	24	126	872	19	23	1192	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	12	15	18	8	24	126	872	19	23	1192	11
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	0.31	0.31	0.38	0.36	0.16	0.48	1.00	2.94	0.06	1.00	2.97	0.03
Final Sat.:	492	492	615	576	256	768	1600	4898	102	1600	4956	44
Capacity Analysis Module:												
Vol/Sat:	0.01	0.02	0.02	0.01	0.03	0.03	0.08	0.18	0.19	0.01	0.24	0.25
Crit Moves:	****			****			****					****

TRAFFIX WORKSHEETS

YEAR 2035 – WITHOUT PROJECT – AM

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	E	xxxxx	0.920	E	xxxxx	0.920	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	D	xxxxx	0.844	D	xxxxx	0.844	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	D	xxxxx	0.826	D	xxxxx	0.826	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	D	xxxxx	0.840	D	xxxxx	0.840	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	B	xxxxx	0.648	B	xxxxx	0.648	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	B	xxxxx	0.641	B	xxxxx	0.641	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	C	xxxxx	0.780	C	xxxxx	0.780	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.474	A	xxxxx	0.474	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	D	xxxxx	0.898	D	xxxxx	0.898	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	B	xxxxx	0.697	B	xxxxx	0.697	+ 0.000 V/C
# 11 Maple Street (NS) & Warner Ave	F	102.9	0.464	F	102.9	0.464	+ 0.000 D/V

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.920
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1	1	0 2	1	0
Volume Module:																
Base Vol:	115	656	104		243	1132	86		53	1198	157		117	797	72	
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:	115	656	104		243	1132	86		53	1198	157		117	797	72	
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:	115	656	104		243	1132	86		53	1198	157		117	797	72	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	115	656	104		243	1132	86		53	1198	157		117	797	72	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	115	656	104		243	1132	86		53	1198	157		117	797	72	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.04	1.00		1.00	1.03	1.00		1.00	1.06	1.00		1.00	1.05	1.00	
Lanes:	1.00	1.73	0.27		1.00	1.86	0.14		1.00	2.00	1.00		1.00	2.75	0.25	
Final Sat.:	1600	2862	438		1600	3074	226		1600	3400	1600		1600	4602	398	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.23	0.24		0.15	0.37	0.38		0.03	0.35	0.10		0.07	0.17	0.18	
Crit Moves:	****						****			****			****			

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.844
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	114	523	127	178	1037	271	261	1452	188	187	709	101
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:	114	523	127	178	1037	271	261	1452	188	187	709	101
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:	114	523	127	178	1037	271	261	1452	188	187	709	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	523	127	178	1037	271	261	1452	188	187	709	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	114	523	127	178	1037	271	261	1452	188	187	709	101
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.41	0.59	1.00	2.38	0.62	1.00	2.66	0.34	1.00	2.63	0.37
Final Sat.:	1600	4062	938	1600	4006	994	1600	4450	550	1600	4401	599
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.14	0.11	0.26	0.27	0.16	0.33	0.34	0.12	0.16	0.17
Crit Moves:	****					****			****	****		

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.826
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
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
Lanes:	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	59	252	271	77	351	40	62	1484	77	160	740	37
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:	59	252	271	77	351	40	62	1484	77	160	740	37
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:	59	252	271	77	351	40	62	1484	77	160	740	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	252	271	77	351	40	62	1484	77	160	740	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
FinalVolume:	59	252	271	77	351	40	62	1484	77	160	740	37
OvlAdjVol:			111									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.03	1.00
Lanes:	1.00	1.00	1.00	1.00	1.80	0.20	1.00	1.90	0.10	1.00	1.90	0.10
Final Sat.:	1600	1700	1600	1600	2973	327	1600	3142	158	1600	3148	152
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.17	0.05	0.12	0.12	0.04	0.47	0.49	0.10	0.24	0.24
OvlAdjV/S:			0.07									
Crit Moves:	****			****					****	****		

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.840
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	217	601	126	89	1412	175	201	1095	380	207	604	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:	217	601	126	89	1412	175	201	1095	380	207	604	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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	217	601	126	89	1412	175	201	1095	380	207	604	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	217	601	126	89	1412	175	201	1095	380	207	604	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	217	601	126	89	1412	175	201	1095	380	207	604	25
OvlAdjVol:									272			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.03	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00	1.00	1.92	0.08
Final Sat.:	3200	3400	1600	3200	5100	1600	1600	3400	1600	1600	3173	127
Capacity Analysis Module:												
Vol/Sat:	0.07	0.18	0.08	0.03	0.28	0.11	0.13	0.32	0.24	0.13	0.19	0.20
OvlAdjV/S:									0.17			
Crit Moves:	****				****			****		****		

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	1	1 0	0 1	1	0 0
Volume Module:												
Base Vol:	59	0	145	0	0	0	0	1241	163	110	499	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	145	0	0	0	0	1241	163	110	499	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	0	145	0	0	0	0	1241	163	110	499	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	0	145	0	0	0	0	1241	163	110	499	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	0	145	0	0	0	0	1241	163	110	499	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.77	0.23	0.36	1.64	0.00
Final Sat.:	1600	0	1600	0	0	0	0	2928	372	578	2722	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.09	0.00	0.00	0.00	0.00	0.42	0.44	0.07	0.18	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.641
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	1 0	1 0	0	0 1	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	3	311	0	14	10	1391	0	0	605	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	3	311	0	14	10	1391	0	0	605	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	3	311	0	14	10	1391	0	0	605	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	3	311	0	14	10	1391	0	0	605	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	3	311	0	14	10	1391	0	0	605	98
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	1600	0	1600	1600	0	1600	1600	3400	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.01	0.01	0.41	0.00	0.00	0.18	0.06
Crit Moves:		****		****				****		****		

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	49	650	190	337	521	161	457	848	126	129	412	344
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	650	190	337	521	161	457	848	126	129	412	344
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	49	650	190	337	521	161	457	848	126	129	412	344
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	650	190	337	521	161	457	848	126	129	412	344
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	650	190	337	521	161	457	848	126	129	412	344
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.32	0.68	1.00	2.29	0.71	2.00	3.00	1.00	2.00	2.00	1.00
Final Sat.:	1600	3914	1086	1600	3867	1133	3200	5100	1600	3200	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.17	0.21	0.13	0.14	0.14	0.17	0.08	0.04	0.12	0.22
Crit Moves:		****			****			****				****

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.474
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	23	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	8	2	12	72	2	103	161	1233	19	25	859	109
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:	8	2	12	72	2	103	161	1233	19	25	859	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	8	2	12	72	2	103	161	1233	19	25	859	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	2	12	72	2	103	161	1233	19	25	859	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	2	12	72	2	103	161	1233	19	25	859	109
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.36	0.09	0.55	1.00	0.02	0.98	1.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	582	145	873	1600	30	1570	1600	4927	73	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.05	0.07	0.07	0.10	0.25	0.26	0.02	0.25	0.07
Crit Moves:	****				****		****				****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	150	735	397	295	1298	232	128	1202	140	112	485	52
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:	150	735	397	295	1298	232	128	1202	140	112	485	52
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:	150	735	397	295	1298	232	128	1202	140	112	485	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	735	397	295	1298	232	128	1202	140	112	485	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	150	735	397	295	1298	232	128	1202	140	112	485	52
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.55	0.45	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4272	728	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.22	0.25	0.18	0.30	0.32	0.08	0.35	0.09	0.07	0.14	0.03
Crit Moves:			****	****				****		****		

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.697
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	3 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	868	0	612	199	1287	0	0	902	492
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	868	0	612	199	1287	0	0	902	492
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	868	0	612	199	1287	0	0	902	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	868	0	612	199	1287	0	0	902	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	868	0	612	199	1287	0	0	902	0
OvlAdjVol:						413						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.27	0.00	0.38	0.12	0.25	0.00	0.00	0.27	0.00
OvlAdjV/S:						0.26						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
AM Peak Hour

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

Intersection #11 Maple Street (NS) & Warner Avenue (EW)

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: F[102.9]

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		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 0 1! 0 0			0 1 0 1 0			0 1 0 1 0		
Volume Module:												
Base Vol:	0	5	37	33	11	30	17	1158	2	26	802	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	5	37	33	11	30	17	1158	2	26	802	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	5	37	33	11	30	17	1158	2	26	802	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	5	37	33	11	30	17	1158	2	26	802	33
Critical Gap Module:												
Critical Gp:	xxxxx	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	2080	580	1486	2065	418	835	xxxx	xxxxx	1160	xxxx	xxxxx
Potent Cap.:	xxxx	54	463	88	55	590	807	xxxx	xxxxx	610	xxxx	xxxxx
Move Cap.:	xxxx	51	463	71	52	590	807	xxxx	xxxxx	610	xxxx	xxxxx
Volume/Cap:	xxxx	0.10	0.08	0.46	0.21	0.05	0.02	xxxx	xxxx	0.04	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	11.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	235	xxxx	102	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	0.6	xxxxx	3.8	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	23.6	xxxxx	103	xxxxx	9.6	xxxx	xxxxx	11.2	xxxx	xxxxx
Shared LOS:	*	*	C	*	F	*	A	*	*	B	*	*
ApproachDel:	23.6			102.9			xxxxxx			xxxxxx		
ApproachLOS:	C			F			*			*		

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

TRAFFIX WORKSHEETS

YEAR 2035 – WITHOUT PROJECT - PM

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Main St (NS) & Edinger Ave (EW	E	xxxxx	0.974	E	xxxxx	0.974	+ 0.000 V/C
# 2 S Grand Ave (NS) & E Edinger A	E	xxxxx	0.928	E	xxxxx	0.928	+ 0.000 V/C
# 3 S Flower St (NS) & W Warner Av	E	xxxxx	0.951	E	xxxxx	0.951	+ 0.000 V/C
# 4 Main St (NS) & Warner Ave (EW)	D	xxxxx	0.861	D	xxxxx	0.861	+ 0.000 V/C
# 5 Halladay St (NS) & E Warner Av	B	xxxxx	0.700	B	xxxxx	0.700	+ 0.000 V/C
# 6 S Standard Ave (NS) & E Warner	A	xxxxx	0.547	A	xxxxx	0.547	+ 0.000 V/C
# 7 S Grand Ave (NS) & E Warner Av	F	xxxxx	1.036	F	xxxxx	1.036	+ 0.000 V/C
# 8 Wright St (NS) & E Warner Ave	D	xxxxx	0.811	D	xxxxx	0.811	+ 0.000 V/C
# 9 Main St (NS) & Dyer Rd (EW)	E	xxxxx	0.978	E	xxxxx	0.978	+ 0.000 V/C
# 10 S Grand Ave (NS) & E Dyer Rd (	C	xxxxx	0.705	C	xxxxx	0.705	+ 0.000 V/C
# 11 Maple Street (NS) & Warner Ave	F	82.2	0.196	F	82.2	0.196	+ 0.000 D/V

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.974
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1	1	0 2	1	0
Volume Module:																
Base Vol:	97	1125	84		138	709	113		145	516	87		136	1664	150	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	97	1125	84		138	709	113		145	516	87		136	1664	150	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	97	1125	84		138	709	113		145	516	87		136	1664	150	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	97	1125	84		138	709	113		145	516	87		136	1664	150	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	97	1125	84		138	709	113		145	516	87		136	1664	150	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.03	1.00		1.00	1.04	1.00		1.00	1.06	1.00		1.00	1.05	1.00	
Lanes:	1.00	1.86	0.14		1.00	1.73	0.27		1.00	2.00	1.00		1.00	2.75	0.25	
Final Sat.:	1600	3078	222		1600	2860	440		1600	3400	1600		1600	4603	397	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.37	0.38		0.09	0.25	0.26		0.09	0.15	0.05		0.09	0.36	0.38	
Crit Moves:			****		****				****						****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.928
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	114	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0	1	0 2	1	0
Volume Module:																
Base Vol:	393	1333	223		141	511	254		202	1015	172		153	1581	122	
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:	393	1333	223		141	511	254		202	1015	172		153	1581	122	
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:	393	1333	223		141	511	254		202	1015	172		153	1581	122	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	393	1333	223		141	511	254		202	1015	172		153	1581	122	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	393	1333	223		141	511	254		202	1015	172		153	1581	122	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.05	1.00		1.00	1.06	1.00		1.00	1.05	1.00		1.00	1.04	1.00	
Lanes:	1.00	2.57	0.43		1.00	2.00	1.00		1.00	2.57	0.43		1.00	2.79	0.21	
Final Sat.:	1600	4312	688		1600	3406	1594		1600	4304	696		1600	4656	344	
Capacity Analysis Module:																
Vol/Sat:	0.25	0.31	0.32		0.09	0.15	0.16		0.13	0.24	0.25		0.10	0.34	0.35	
Crit Moves:	****						****		****						****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	125	Critical Vol./Cap.(X):	0.951
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	147	Level Of Service:	E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 1	1	0
Volume Module:																
Base Vol:	109	517	265		30	345	108		186	1082	53		112	1435	76	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	109	517	265		30	345	108		186	1082	53		112	1435	76	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	109	517	265		30	345	108		186	1082	53		112	1435	76	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	109	517	265		30	345	108		186	1082	53		112	1435	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	
FinalVolume:	109	517	265		30	345	108		186	1082	53		112	1435	76	
OvlAdjVol:			153													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.04	1.00		1.00	1.03	1.00		1.00	1.03	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.52	0.48		1.00	1.91	0.09		1.00	1.90	0.10	
Final Sat.:	1600	1700	1600		1600	2537	763		1600	3151	149		1600	3139	161	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.30	0.17		0.02	0.14	0.14		0.12	0.34	0.35		0.07	0.46	0.47	
OvlAdjV/S:			0.10													
Crit Moves:	****				****				****						****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.861
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Ovl				Include			
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	
Lanes:	2	0 2	0 1		2	0 3	0 1		1	0 2	0 1		1	0 1	1	0
Volume Module:																
Base Vol:	334	1166	190		136	692	177		161	875	134		195	965	103	
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:	334	1166	190		136	692	177		161	875	134		195	965	103	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	334	1166	190		136	692	177		161	875	134		195	965	103	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	334	1166	190		136	692	177		161	875	134		195	965	103	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	334	1166	190		136	692	177		161	875	134		195	965	103	
OvlAdjVol:											0					
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.03	1.00	
Lanes:	2.00	2.00	1.00		2.00	3.00	1.00		1.00	2.00	1.00		1.00	1.81	0.19	
Final Sat.:	3200	3400	1600		3200	5100	1600		1600	3400	1600		1600	2991	309	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.34	0.12		0.04	0.14	0.11		0.10	0.26	0.08		0.12	0.32	0.33	
OvlAdjV/S:											0.00					
Crit Moves:	****				****				****						****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.700
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 0	0	1	0	0 0	0	0	0	0	1	1	0	0	1	1 0 0
Volume Module:																
Base Vol:	116	0	355		0	0	0		0	836	70		198	1221	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	116	0	355		0	0	0		0	836	70		198	1221	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	116	0	355		0	0	0		0	836	70		198	1221	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	0	355		0	0	0		0	836	70		198	1221	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	116	0	355		0	0	0		0	836	70		198	1221	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.04	1.00	
Lanes:	1.00	0.00	1.00		0.00	0.00	0.00		0.00	1.85	0.15		0.28	1.72	0.00	
Final Sat.:	1600	0	1600		0	0	0		0	3053	247		447	2853	0	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.00	0.22		0.00	0.00	0.00		0.00	0.27	0.28		0.12	0.43	0.00	
Crit Moves:			****						****					****		

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	105	Critical Vol./Cap.(X):	0.547
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	26	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 0	1	0	1	0 0	0	1	1	0 2	0	0	0	0 2	0	1
Volume Module:																
Base Vol:	0	0	26		168	0	5		5	891	0		0	1275	343	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	26		168	0	5		5	891	0		0	1275	343	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	26		168	0	5		5	891	0		0	1275	343	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	26		168	0	5		5	891	0		0	1275	343	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	0	26		168	0	5		5	891	0		0	1275	343	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	0.00	1.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	1600	0	1600		1600	0	1600		1600	3400	0		0	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.02		0.11	0.00	0.00		0.00	0.26	0.00		0.00	0.38	0.21	
Crit Moves:			****		****					****					****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	1.036
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0	2	1	0	1	0	2	1	0	2	0	3	0	1	
Volume Module:																
Base Vol:	130	732	208		482	428	315		318	873	35		130	1176	636	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	130	732	208		482	428	315		318	873	35		130	1176	636	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	130	732	208		482	428	315		318	873	35		130	1176	636	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	130	732	208		482	428	315		318	873	35		130	1176	636	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	130	732	208		482	428	315		318	873	35		130	1176	636	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.05	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	2.34	0.66		1.00	2.00	1.00		2.00	3.00	1.00		2.00	2.00	1.00	
Final Sat.:	1600	3938	1062		1600	3400	1600		3200	5100	1600		3200	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.19	0.20		0.30	0.13	0.20		0.10	0.17	0.02		0.04	0.35	0.40	
Crit Moves:			****		****				****						****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.811
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	14	3	32	163	0	70	117	1670	7	23	1889	189
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	3	32	163	0	70	117	1670	7	23	1889	189
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	3	32	163	0	70	117	1670	7	23	1889	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	3	32	163	0	70	117	1670	7	23	1889	189
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	3	32	163	0	70	117	1670	7	23	1889	189
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	0.29	0.06	0.65	1.00	0.00	1.00	1.00	2.99	0.01	1.00	2.00	1.00
Final Sat.:	457	98	1045	1600	0	1600	1600	4980	20	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.10	0.00	0.04	0.07	0.34	0.35	0.01	0.56	0.12
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.978
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	282	1360	385	76	732	139	276	746	112	253	1076	107
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:	282	1360	385	76	732	139	276	746	112	253	1076	107
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:	282	1360	385	76	732	139	276	746	112	253	1076	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	282	1360	385	76	732	139	276	746	112	253	1076	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	282	1360	385	76	732	139	276	746	112	253	1076	107
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.00	1.00	1.00	2.52	0.48	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3400	1600	1600	4234	766	1600	3400	1600	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.18	0.40	0.24	0.05	0.17	0.18	0.17	0.22	0.07	0.16	0.32	0.07
Crit Moves:		****			****			****			****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.705
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	414	0	478	306	1193	0	0	1165	418
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	414	0	478	306	1193	0	0	1165	418
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	414	0	478	306	1193	0	0	1165	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	414	0	478	306	1193	0	0	1165	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	414	0	478	306	1193	0	0	1165	0
OvlAdjVol:						172						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.30	0.19	0.23	0.00	0.00	0.34	0.00
OvlAdjV/S:						0.11						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Horizon Year 2035 Without Project
PM Peak Hour

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

Intersection #11 Maple Street (NS) & Warner Avenue (EW)

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: F[82.2]

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			
Rights:	Include			Include			Include				Include			
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 1	0	1	0	0 1	0	1	0
Volume Module:														
Base Vol:	8	3	11	2	3	23	69	984	17		12	1253	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:	8	3	11	2	3	23	69	984	17		12	1253	22	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	8	3	11	2	3	23	69	984	17		12	1253	22	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	8	3	11	2	3	23	69	984	17		12	1253	22	
Critical Gap Module:														
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:														
Cnflict Vol:	1783	2430	501	1920	2427	638	1275	xxxx	xxxxx		1001	xxxx	xxxxx	
Potent Cap.:	53	32	521	42	33	424	551	xxxx	xxxxx		700	xxxx	xxxxx	
Move Cap.:	41	28	521	33	28	424	551	xxxx	xxxxx		700	xxxx	xxxxx	
Volume/Cap:	0.20	0.11	0.02	0.06	0.11	0.05	0.13	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.5	xxxx	xxxxx		10.2	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	B	*	*		B	*	*	
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	68	xxxxx	xxxx	126	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	1.2	xxxxx	xxxxx	0.8	xxxxx	0.4	xxxx	xxxxx		0.1	xxxx	xxxxx	
Shrd ConDel:	xxxxx	82.2	xxxxx	xxxxx	41.6	xxxxx	12.5	xxxx	xxxxx		10.2	xxxx	xxxxx	
Shared LOS:	*	F	*	*	E	*	B	*	*		B	*	*	
ApproachDel:	82.2			41.6			xxxxxx				xxxxxx			
ApproachLOS:	F			E			*				*			

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

TRAFFIX WORKSHEETS

YEAR 2035 – WITH PROJECT – AM

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Main St (NS) & Edinger Ave (EW	E	xxxxx	0.911	E	xxxxx	0.911	+ 0.000
# 2 S Grand Ave (NS) & E Edinger A	D	xxxxx	0.845	D	xxxxx	0.845	+ 0.000
# 3 S Flower St (NS) & W Warner Av	D	xxxxx	0.856	D	xxxxx	0.856	+ 0.000
# 4 Main St (NS) & Warner Ave (EW)	C	xxxxx	0.796	C	xxxxx	0.796	+ 0.000
# 5 Halladay St (NS) & E Warner Av	A	xxxxx	0.563	A	xxxxx	0.563	+ 0.000
# 6 S Standard Ave (NS) & E Warner	B	xxxxx	0.628	B	xxxxx	0.628	+ 0.000
# 7 S Grand Ave (NS) & E Warner Av	C	xxxxx	0.778	C	xxxxx	0.778	+ 0.000
# 8 Wright St (NS) & E Warner Ave	A	xxxxx	0.436	A	xxxxx	0.436	+ 0.000
# 9 Main St (NS) & Dyer Rd (EW)	D	xxxxx	0.884	D	xxxxx	0.884	+ 0.000
# 10 S Grand Ave (NS) & E Dyer Rd (	C	xxxxx	0.704	C	xxxxx	0.704	+ 0.000
# 11 Maple Street NS) & E Warner Av	A	xxxxx	0.380	A	xxxxx	0.380	+ 0.000

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.911
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	98	632	90	237	1148	83	59	1192	162	116	752	77
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:	98	632	90	237	1148	83	59	1192	162	116	752	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	632	90	237	1148	83	59	1192	162	116	752	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	632	90	237	1148	83	59	1192	162	116	752	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	632	90	237	1148	83	59	1192	162	116	752	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.75	0.25	1.00	1.87	0.13	1.00	2.00	1.00	1.00	2.72	0.28
Final Sat.:	1600	2901	399	1600	3084	216	1600	3400	1600	1600	4554	446
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.23	0.15	0.37	0.38	0.04	0.35	0.10	0.07	0.17	0.17
Crit Moves:	****					****		****		****		

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.845
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	108	516	126	185	1045	270	263	1469	185	187	700	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	108	516	126	185	1045	270	263	1469	185	187	700	104
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	516	126	185	1045	270	263	1469	185	187	700	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	516	126	185	1045	270	263	1469	185	187	700	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	516	126	185	1045	270	263	1469	185	187	700	104
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.41	0.59	1.00	2.38	0.62	1.00	2.66	0.34	1.00	2.61	0.39
Final Sat.:	1600	4058	942	1600	4014	986	1600	4463	537	1600	4379	621
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.13	0.12	0.26	0.27	0.16	0.33	0.34	0.12	0.16	0.17
Crit Moves:	****					****			****	****		

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.856
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Ovl				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	1	0 1	1	0	1	0 1	1	0	1	0 2	0	1
Volume Module:																
Base Vol:	48	242	285		87	330	34		59	1558	68		175	745	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:	48	242	285		87	330	34		59	1558	68		175	745	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:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	48	242	285		87	330	34		59	1558	68		175	745	43	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	48	242	285		87	330	34		59	1558	68		175	745	43	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	48	242	285		87	330	34		59	1558	68		175	745	43	
OvlAdjVol:			110													
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.03	1.00		1.00	1.03	1.00		1.00	1.06	1.00	
Lanes:	1.00	1.00	1.00		1.00	1.81	0.19		1.00	1.92	0.08		1.00	2.00	1.00	
Final Sat.:	1600	1700	1600		1600	3001	299		1600	3166	134		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.14	0.18		0.05	0.11	0.11		0.04	0.49	0.51		0.11	0.22	0.03	
OvlAdjV/S:			0.07													
Crit Moves:	****				****						****	****				

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Ovl				Include			
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	
Lanes:	2	0 2	0	1	2	0 3	0	1	2	0 2	0	1	2	0 3	0	1
Volume Module:																
Base Vol:	206	575	159		128	1413	191		259	1188	313		198	629	26	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	206	575	159		128	1413	191		259	1188	313		198	629	26	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	206	575	159		128	1413	191		259	1188	313		198	629	26	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	206	575	159		128	1413	191		259	1188	313		198	629	26	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	206	575	159		128	1413	191		259	1188	313		198	629	26	
OvlAdjVol:											210					
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	2.00	2.00	1.00		2.00	3.00	1.00		2.00	2.00	1.00		2.00	3.00	1.00	
Final Sat.:	3200	3400	1600		3200	5100	1600		3200	3400	1600		3200	5100	1600	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.17	0.10		0.04	0.28	0.12		0.08	0.35	0.20		0.06	0.12	0.02	
OvlAdjV/S:											0.13					
Crit Moves:	****					****				****			****			

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.563
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	46	0	161	0	0	0	0	1339	151	163	496	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	0	161	0	0	0	0	1339	151	163	496	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	0	161	0	0	0	0	1339	151	163	496	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	0	161	0	0	0	0	1339	151	163	496	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	0	161	0	0	0	0	1339	151	163	496	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.70	0.30	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4514	486	1600	5100	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.10	0.00	0.00	0.00	0.00	0.30	0.31	0.10	0.10	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1 0	1	0	1 0	0 1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	5	2	6	447	2	25	98	1345	10	45	601	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	2	6	447	2	25	98	1345	10	45	601	139
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:	5	2	6	447	2	25	98	1345	10	45	601	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	2	6	447	2	25	98	1345	10	45	601	139
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	2	6	447	2	25	98	1345	10	45	601	139
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	1.00	1.00	1.00	0.99	0.01	1.00	1.00	2.98	0.02	1.00	2.44	0.56
Final Sat.:	1600	1700	1600	1593	7	1600	1600	4965	35	1600	4098	902
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.28	0.28	0.02	0.06	0.27	0.28	0.03	0.15	0.15
Crit Moves:		****		****					****	****		

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	3	0 1
Volume Module:												
Base Vol:	55	640	209	314	522	155	509	943	152	145	444	321
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	640	209	314	522	155	509	943	152	145	444	321
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	640	209	314	522	155	509	943	152	145	444	321
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	640	209	314	522	155	509	943	152	145	444	321
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	640	209	314	522	155	509	943	152	145	444	321
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.26	0.74	1.00	2.31	0.69	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	3818	1182	1600	3901	1099	3200	5100	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.18	0.20	0.13	0.14	0.16	0.18	0.10	0.05	0.09	0.20
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
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AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.436
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0	0 1	0	1	0	2	1 0
Volume Module:												
Base Vol:	8	2	12	72	2	102	172	1285	19	25	882	117
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:	8	2	12	72	2	102	172	1285	19	25	882	117
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:	8	2	12	72	2	102	172	1285	19	25	882	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	2	12	72	2	102	172	1285	19	25	882	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	2	12	72	2	102	172	1285	19	25	882	117
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	0.36	0.09	0.55	1.00	0.02	0.98	1.00	2.96	0.04	1.00	2.65	0.35
Final Sat.:	582	145	873	1600	31	1569	1600	4930	70	1600	4438	562
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.05	0.07	0.06	0.11	0.26	0.27	0.02	0.20	0.21
Crit Moves:	****				****		****					****

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.884
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 2	0	1	1	0 2	1	0	1	0 2	0	1	1	0 2	0	1
Volume Module:																
Base Vol:	149	735	403		271	1279	208		121	1159	144		129	511	55	
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:	149	735	403		271	1279	208		121	1159	144		129	511	55	
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:	149	735	403		271	1279	208		121	1159	144		129	511	55	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	149	735	403		271	1279	208		121	1159	144		129	511	55	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	149	735	403		271	1279	208		121	1159	144		129	511	55	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.05	1.00		1.00	1.06	1.00		1.00	1.06	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.58	0.42		1.00	2.00	1.00		1.00	2.00	1.00	
Final Sat.:	1600	3400	1600		1600	4329	671		1600	3400	1600		1600	3400	1600	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.22	0.25		0.17	0.30	0.31		0.08	0.34	0.09		0.08	0.15	0.03	
Crit Moves:			****		****					****			****			

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.704
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	923	0	620	179	1258	0	0	912	482
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	923	0	620	179	1258	0	0	912	482
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	923	0	620	179	1258	0	0	912	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	923	0	620	179	1258	0	0	912	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	923	0	620	179	1258	0	0	912	0
OvlAdjVol:						441						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.29	0.00	0.39	0.11	0.25	0.00	0.00	0.27	0.00
OvlAdjV/S:						0.28						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Maple Street NS) & E Warner Avenue (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.380
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	19	Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	0	1! 0	1	0	2 1	0	1	0 2 1 0
Volume Module:												
Base Vol:	2	17	34	59	12	30	102	1050	4	64	769	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	17	34	59	12	30	102	1050	4	64	769	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	17	34	59	12	30	102	1050	4	64	769	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	17	34	59	12	30	102	1050	4	64	769	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	17	34	59	12	30	102	1050	4	64	769	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Lanes:	0.04	0.32	0.64	0.58	0.12	0.30	1.00	2.99	0.01	1.00	2.90	0.10
Final Sat.:	60	513	1026	935	190	475	1600	4982	18	1600	4837	163
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.03	0.04	0.06	0.06	0.06	0.21	0.22	0.04	0.16	0.17
Crit Moves:		****		****					****	****		

TRAFFIX WORKSHEETS

YEAR 2035 – WITH PROJECT – PM

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Main St (NS) & Edinger Ave (EW	E	xxxxx	0.983	E	xxxxx	0.983	+ 0.000
# 2 S Grand Ave (NS) & E Edinger A	E	xxxxx	0.937	E	xxxxx	0.937	+ 0.000
# 3 S Flower St (NS) & W Warner Av	E	xxxxx	0.917	E	xxxxx	0.917	+ 0.000
# 4 Main St (NS) & Warner Ave (EW)	C	xxxxx	0.730	C	xxxxx	0.730	+ 0.000
# 5 Halladay St (NS) & E Warner Av	B	xxxxx	0.628	B	xxxxx	0.628	+ 0.000
# 6 S Standard Ave (NS) & E Warner	B	xxxxx	0.634	B	xxxxx	0.634	+ 0.000
# 7 S Grand Ave (NS) & E Warner Av	E	xxxxx	0.946	E	xxxxx	0.946	+ 0.000
# 8 Wright St (NS) & E Warner Ave	C	xxxxx	0.710	C	xxxxx	0.710	+ 0.000
# 9 Main St (NS) & Dyer Rd (EW)	E	xxxxx	0.910	E	xxxxx	0.910	+ 0.000
# 10 S Grand Ave (NS) & E Dyer Rd (	C	xxxxx	0.701	C	xxxxx	0.701	+ 0.000
# 11 Maple Street NS) & E Warner Av	A	xxxxx	0.430	A	xxxxx	0.430	+ 0.000

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Main St (NS) & Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.983
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	89	1122	87	145	682	104	137	508	79	144	1692	167
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:	89	1122	87	145	682	104	137	508	79	144	1692	167
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:	89	1122	87	145	682	104	137	508	79	144	1692	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	1122	87	145	682	104	137	508	79	144	1692	167
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	1122	87	145	682	104	137	508	79	144	1692	167
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.03	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.05	1.00
Lanes:	1.00	1.86	0.14	1.00	1.74	0.26	1.00	2.00	1.00	1.00	2.73	0.27
Final Sat.:	1600	3070	230	1600	2877	423	1600	3400	1600	1600	4569	431
Capacity Analysis Module:												
Vol/Sat:	0.06	0.37	0.38	0.09	0.24	0.25	0.09	0.15	0.05	0.09	0.37	0.39
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 S Grand Ave (NS) & E Edinger Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.937
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	125	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	353	1314	212	158	516	269	212	1031	157	141	1534	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	353	1314	212	158	516	269	212	1031	157	141	1534	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	353	1314	212	158	516	269	212	1031	157	141	1534	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	353	1314	212	158	516	269	212	1031	157	141	1534	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	353	1314	212	158	516	269	212	1031	157	141	1534	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.58	0.42	1.00	2.00	1.00	1.00	2.60	0.40	1.00	2.77	0.23
Final Sat.:	1600	4333	667	1600	3400	1600	1600	4366	634	1600	4625	375
Capacity Analysis Module:												
Vol/Sat:	0.22	0.30	0.32	0.10	0.15	0.17	0.13	0.24	0.25	0.09	0.33	0.35
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 S Flower St (NS) & W Warner Ave (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.917
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	104	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
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
Lanes:	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0	1 0	2 0	1
Volume Module:												
Base Vol:	82	506	273	35	337	93	181	1107	45	132	1506	104
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:	82	506	273	35	337	93	181	1107	45	132	1506	104
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:	82	506	273	35	337	93	181	1107	45	132	1506	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	506	273	35	337	93	181	1107	45	132	1506	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	506	273	35	337	93	181	1107	45	132	1506	104
OvlAdjVol:			141									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.03	1.00	1.00	1.06	1.00
Lanes:	1.00	1.00	1.00	1.00	1.57	0.43	1.00	1.92	0.08	1.00	2.00	1.00
Final Sat.:	1600	1700	1600	1600	2608	692	1600	3175	125	1600	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.30	0.17	0.02	0.13	0.13	0.11	0.35	0.36	0.08	0.44	0.07
OvlAdjV/S:			0.09									
Crit Moves:	****			****			****			****		

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Main St (NS) & Warner Ave (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.730
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ovl			Include		
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
Lanes:	2 0	2 0	1	2 0	3 0	1	2 0	2 0	1	2 0	3 0	1
Volume Module:												
Base Vol:	329	1184	168	119	680	174	231	789	145	220	1085	119
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:	329	1184	168	119	680	174	231	789	145	220	1085	119
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:	329	1184	168	119	680	174	231	789	145	220	1085	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	329	1184	168	119	680	174	231	789	145	220	1085	119
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	329	1184	168	119	680	174	231	789	145	220	1085	119
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00
Final Sat.:	3200	3400	1600	3200	5100	1600	3200	3400	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.10	0.35	0.11	0.04	0.13	0.11	0.07	0.23	0.09	0.07	0.21	0.07
OvlAdjV/S:									0.00			
Crit Moves:	****			****				****		****		

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Halladay St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	0 0	1	0 0	0 0	0	0 0	2	1 0	1 0	3	0 0
Volume Module:												
Base Vol:	92	0	381	0	0	0	0	849	50	244	1562	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	92	0	381	0	0	0	0	849	50	244	1562	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	92	0	381	0	0	0	0	849	50	244	1562	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	0	381	0	0	0	0	849	50	244	1562	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	0	381	0	0	0	0	849	50	244	1562	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.04	1.00	1.00	1.06	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.83	0.17	1.00	3.00	0.00
Final Sat.:	1600	0	1600	0	0	0	0	4733	267	1600	5100	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.24	0.00	0.00	0.00	0.00	0.18	0.19	0.15	0.31	0.00
Crit Moves:			****						****	****		

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 S Standard Ave (NS) & E Warner Ave (EW)

Cycle (sec):	135	Critical Vol./Cap.(X):	0.634
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	1	0 1	0	1	0	1	0	0 1	1	0	2	1 0	1	0	2	1 0
Volume Module:																
Base Vol:	0	0	37		268	0	4		8	856	0		22	1588	340	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	37		268	0	4		8	856	0		22	1588	340	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	0	0	37		268	0	4		8	856	0		22	1588	340	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	37		268	0	4		8	856	0		22	1588	340	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	0	37		268	0	4		8	856	0		22	1588	340	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.06	1.00		1.00	1.00	1.00		1.00	1.04	1.00		1.00	1.05	1.00	
Lanes:	1.00	1.00	1.00		1.00	0.00	1.00		1.00	3.00	0.00		1.00	2.47	0.53	
Final Sat.:	1600	1700	1600		1600	0	1600		1600	5000	0		1600	4154	846	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.02		0.17	0.00	0.00		0.01	0.17	0.00		0.01	0.38	0.40	
Crit Moves:			****		****				****						****	

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 S Grand Ave (NS) & E Warner Ave (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.946
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	131	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2	1 0	1 0	2	1 0	2 0	3	0 1	2 0	3	0 1
Volume Module:												
Base Vol:	178	712	221	439	409	368	322	933	39	125	1376	530
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:	178	712	221	439	409	368	322	933	39	125	1376	530
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:	178	712	221	439	409	368	322	933	39	125	1376	530
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	712	221	439	409	368	322	933	39	125	1376	530
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	178	712	221	439	409	368	322	933	39	125	1376	530
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.05	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	1.00	2.29	0.71	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	3863	1137	1600	3400	1600	3200	5100	1600	3200	5100	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.18	0.19	0.27	0.12	0.23	0.10	0.18	0.02	0.04	0.27	0.33
Crit Moves:			****	****			****					****

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Wright St (NS) & E Warner Ave (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	38	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
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
Lanes:	0	0	1! 0	0	1	0 0 1	0	1	0 2 1	0	1	0 2 1 0
Volume Module:												
Base Vol:	14	3	33	167	0	69	113	1714	7	23	1986	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	3	33	167	0	69	113	1714	7	23	1986	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	3	33	167	0	69	113	1714	7	23	1986	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	3	33	167	0	69	113	1714	7	23	1986	193
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	3	33	167	0	69	113	1714	7	23	1986	193
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.05	1.00
Lanes:	0.28	0.06	0.66	1.00	0.00	1.00	1.00	2.99	0.01	1.00	2.73	0.27
Final Sat.:	448	96	1056	1600	0	1600	1600	4980	20	1600	4575	425
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.10	0.00	0.04	0.07	0.34	0.36	0.01	0.43	0.45
Crit Moves:		****			****			****				****

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 Main St (NS) & Dyer Rd (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.910
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
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
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	283	1375	422	84	744	142	261	766	105	254	1081	109
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:	283	1375	422	84	744	142	261	766	105	254	1081	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	283	1375	422	84	744	142	261	766	105	254	1081	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	283	1375	422	84	744	142	261	766	105	254	1081	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	283	1375	422	84	744	142	261	766	105	254	1081	109
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Lanes:	1.00	2.00	1.00	1.00	2.52	0.48	1.00	2.64	0.36	1.00	2.73	0.27
Final Sat.:	1600	3400	1600	1600	4231	769	1600	4421	579	1600	4560	440
Capacity Analysis Module:												
Vol/Sat:	0.18	0.40	0.26	0.05	0.18	0.18	0.16	0.17	0.18	0.16	0.24	0.25
Crit Moves:		****			****			****				****

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 S Grand Ave (NS) & E Dyer Rd (EW)

Cycle (sec):	140	Critical Vol./Cap.(X):	0.701
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	39	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ovl			Include			Ignore		
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
Lanes:	0 0	0	0 0	2 0	0	0 1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	431	0	469	316	1182	0	0	1132	452
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	431	0	469	316	1182	0	0	1132	452
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	431	0	469	316	1182	0	0	1132	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	431	0	469	316	1182	0	0	1132	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	0	0	0	431	0	469	316	1182	0	0	1132	0
OvlAdjVol:						153						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00	1.00	1.06	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	5100	0	0	3400	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.29	0.20	0.23	0.00	0.00	0.33	0.00
OvlAdjV/S:						0.10						
Crit Moves:				****			****				****	

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Maple Street NS) & E Warner Avenue (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.430
Loss Time (sec):	5	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	21	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
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	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	2	1	0	2	1
Volume Module:																
Base Vol:	12	12	16		19	1	25		130	903	19		24	1251	11	
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	12	16		19	1	25		130	903	19		24	1251	11	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	12	12	16		19	1	25		130	903	19		24	1251	11	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	12	12	16		19	1	25		130	903	19		24	1251	11	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	12	12	16		19	1	25		130	903	19		24	1251	11	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.04	1.00		1.00	1.04	1.00	
Lanes:	0.30	0.30	0.40		0.42	0.02	0.56		1.00	2.94	0.06		1.00	2.97	0.03	
Final Sat.:	480	480	640		676	36	889		1600	4901	99		1600	4958	42	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.03	0.03		0.01	0.03	0.03		0.08	0.18	0.19		0.02	0.25	0.26	
Crit Moves:	****					****			****						****	

TRAFFIX WORKSHEETS

QUEUE SUMMARY REPORTS

Warner Avenue Widening Study
Existing Year 2012 With Project
AM Peak Hour

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[DesignQueue]:	3	12	12	7	18	18	3	17	5	4	8	8
#2	[DesignQueue]:	2	5	5	5	10	10	6	11	11	5	6	6
#3	[DesignQueue]:	1	6	4	1	5	5	2	12	12	4	5	1
#4	[DesignQueue]:	2	5	2	1	10	4	3	9	5	2	5	1
#5	[DesignQueue]:	0	0	1	0	0	0	0	3	3	1	1	0
#6	[DesignQueue]:	0	0	0	3	0	1	2	3	0	1	2	2
#7	[DesignQueue]:	2	4	4	2	4	4	2	3	3	1	1	1
#8	[DesignQueue]:	0	0	0	0	1	1	1	1	1	0	1	1
#9	[DesignQueue]:	3	9	8	9	15	15	4	15	3	6	7	2
#10	[DesignQueue]:	0	0	0	17	0	20	8	13	0	0	19	0
#11	[DesignQueue]:	0	0	0	1	1	1	1	3	3	0	2	2

Warner Avenue Widening Study
Existing Year 2012 With Project
PM Peak Hour

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[DesignQueue]:	7	24	24	6	17	17	7	9	4	6	23	23
#2	[DesignQueue]:	9	17	17	6	8	8	7	10	10	4	16	16
#3	[DesignQueue]:	2	12	7	1	5	5	5	11	11	4	14	2
#4	[DesignQueue]:	4	13	3	2	5	4	4	10	3	2	8	3
#5	[DesignQueue]:	1	0	3	0	0	0	0	3	3	1	3	0
#6	[DesignQueue]:	0	0	0	1	0	1	3	2	0	0	5	5
#7	[DesignQueue]:	4	6	6	2	6	6	4	2	2	1	5	5
#8	[DesignQueue]:	0	0	0	0	1	1	1	1	1	0	2	2
#9	[DesignQueue]:	15	40	27	11	16	16	16	26	4	16	32	9
#10	[DesignQueue]:	0	0	0	22	0	36	25	22	0	0	40	0
#11	[DesignQueue]:	0	0	0	0	0	0	2	2	2	0	3	3

Warner Avenue Widening Study
Project Opening Year 2020 With Project
AM Peak Hour

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[DesignQueue]:	7	22	22	15	34	34	5	33	9	8	15	15
#2	[DesignQueue]:	4	8	8	7	16	16	10	18	18	7	9	9
#3	[DesignQueue]:	1	8	8	2	6	6	2	16	16	6	6	1
#4	[DesignQueue]:	4	8	4	2	15	5	5	15	8	4	6	1
#5	[DesignQueue]:	1	0	1	0	0	0	0	4	4	1	1	0
#6	[DesignQueue]:	0	0	0	5	5	0	1	5	5	1	3	3
#7	[DesignQueue]:	2	7	7	6	5	5	5	6	3	1	3	5
#8	[DesignQueue]:	0	0	0	0	1	1	1	2	2	0	1	1
#9	[DesignQueue]:	9	21	21	18	29	29	9	32	7	10	14	3
#10	[DesignQueue]:	0	0	0	22	0	25	11	19	0	0	25	0
#11	[DesignQueue]:	0	0	0	1	1	1	1	3	3	0	2	2

Warner Avenue Widening Study
Project Opening Year 2020 With Project
PM Peak Hour

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[DesignQueue]:	10	43	43	12	27	27	12	17	5	12	44	44
#2	[DesignQueue]:	23	35	35	13	19	19	15	23	23	10	35	35
#3	[DesignQueue]:	3	22	12	1	10	10	10	20	20	7	28	3
#4	[DesignQueue]:	5	14	3	2	6	4	4	11	3	3	10	3
#5	[DesignQueue]:	2	0	4	0	0	0	0	4	4	2	5	0
#6	[DesignQueue]:	0	0	0	3	3	0	1	3	3	0	6	6
#7	[DesignQueue]:	9	14	14	12	10	15	9	8	2	3	15	15
#8	[DesignQueue]:	0	0	0	1	1	1	1	2	2	0	3	3
#9	[DesignQueue]:	21	47	28	9	22	22	21	29	6	21	40	8
#10	[DesignQueue]:	0	0	0	20	0	34	26	21	0	0	41	0
#11	[DesignQueue]:	0	0	0	1	1	1	1	2	2	0	4	4

Warner Avenue Widening Study
Horizon Year 2035 With Project
AM Peak Hour

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[DesignQueue]:	9	28	28	21	43	43	6	43	10	11	19	19
#2	[DesignQueue]:	7	12	12	11	23	23	14	27	27	11	14	14
#3	[DesignQueue]:	2	10	12	4	8	8	3	23	23	8	8	1
#4	[DesignQueue]:	5	11	6	3	21	7	7	22	11	5	8	1
#5	[DesignQueue]:	1	0	2	0	0	0	0	5	5	1	1	0
#6	[DesignQueue]:	0	0	0	6	6	0	2	6	6	1	4	4
#7	[DesignQueue]:	3	14	14	13	8	8	12	12	5	4	7	13
#8	[DesignQueue]:	0	0	0	0	1	1	1	2	2	0	2	2
#9	[DesignQueue]:	14	29	30	23	37	37	11	43	9	12	18	4
#10	[DesignQueue]:	0	0	0	25	0	30	13	24	0	0	30	0
#11	[DesignQueue]:	0	0	0	1	1	1	1	3	3	1	2	2

Warner Avenue Widening Study
Horizon Year 2035 With Project
PM Peak Hour

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[DesignQueue]:	9	44	44	13	26	26	13	18	5	13	47	47
#2	[DesignQueue]:	29	41	41	14	24	25	19	28	28	13	43	43
#3	[DesignQueue]:	6	37	19	2	16	16	16	32	32	12	46	5
#4	[DesignQueue]:	6	15	4	2	7	5	4	12	4	4	12	3
#5	[DesignQueue]:	2	0	5	0	0	0	0	4	4	3	7	0
#6	[DesignQueue]:	0	0	1	4	0	0	0	3	0	0	7	7
#7	[DesignQueue]:	23	52	52	77	42	78	21	72	8	7	101	107
#8	[DesignQueue]:	0	0	0	2	0	1	1	4	4	0	5	5
#9	[DesignQueue]:	24	46	26	8	24	24	22	25	25	22	35	35
#10	[DesignQueue]:	0	0	0	19	0	33	26	20	0	0	42	0
#11	[DesignQueue]:	0	0	0	0	0	0	1	2	2	0	4	4