

DRAFT

ADDENDUM TO THE

MT. SAN ANTONIO COLLEGE

2012 FACILITY MASTER PLAN FINAL EIR

SCH 2002041161

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TABLE OF CONTENTS

1.0	<u>INTRODUCTION</u>	3
1.1	PROJECT HISTORY	3
1.2	ADDENDUM TO AN EIR	4
2.0	<u>PROJECT DESCRIPTION</u>	4
2.1	MITIGATION MEASURE 2c	6
2.2	PROPOSED TRUCK HAUL ROUTE	6
3.0	<u>ENVIRONMENTAL EVALUATION</u>	8
3.1	TRUCK HAUL ANALYSIS	8
3.2	REVISED MITIGATION MEASURE 2c	13
3.3	ADDENDUM JUSTIFICATION	14
3.4	REVISED MITIGATION MEASURES 2k, 3a and 3i	18
3.5	CEQA CONCLUSIONS	22
4.0	<u>BIBLIOGRAPHY</u>	22
5.0	<u>APPENDIX</u>	22
A.	Truck Haul Congestion Analysis	23

1.0 INTRODUCTION

The Mt. San Antonio Community College District (District) is considering extending construction truck traffic for an additional two hours per day during non-peak hours. Further, minor edits to four existing mitigation measures adopted in the 2012 Mitigation Monitoring Program (2012 MMP) are also being considered to: (1) accommodate the extended construction truck traffic time (MM-2c); (2) require parking supply studies on regular intervals to more precisely determine when the parking supply mitigation is required to be implemented (MM-2k); (3) remove the requirement for grading permits, since the District does not require them (MM-3a); and (4) align the paint VOC requirements with current industry practices and California Emissions Estimator Model (CalEEMod) standards (MM-3i). Additionally, six new mitigation measures specific to the West Parcel Solar project (Solar Project) are proposed to mitigate potentially significant traffic impacts from the construction truck hauling of soil import to the West Parcel.

1.1 PROJECT HISTORY

The District certified the Mt. San Antonio College 2012 Facility Master Plan (FMP) Subsequent Final Environmental Impact Report (SCH 2002041161) (2012 Final EIR) and adopted a Statement of Overriding Considerations and a 2012 Mitigation Monitoring Program (2012 MMP) on December 11, 2013. Section 3.9 and others of the 2012 Final EIR included the environmental evaluation of the West Parcel Solar/Retail project.

On September 16, 2015, the Board of Trustees awarded to Borrego Solar Systems, Inc. the design-build agreement for the purchase and installation of a ground-mount solar photovoltaic system which will provide approximately 2.2 megawatts (MW) of clean power for the campus, and an operation and maintenance agreement for the operation, maintenance, and repair of the system (the “Solar Project”).

The site-specific Solar Project plans for the Borrego contract were evaluated for new or significantly exacerbated potential environmental impacts in September 2015. The 2012 Final EIR was found to be sufficient and adequate for the site-specific Solar Project.

An analysis leading up to the findings that were made are presented in a Memorandum to Gary Nellesen, Director of Facilities Planning & Management from Sid Lindmark, AICP, *CEQA Clearances for the West Parcel Solar (WPS) Project (Site-Specific Plans)*, September 9, 2015 and its attendant Environmental Checklist.

On November 18, 2015, the Board of Trustees awarded five individual multi-prime bid packages for the South Campus Site Improvements project (Bid Nos. 3055-3059) required to prepare the West Parcel site for the Solar Project.

1.2 ADDENDUM TO AN EIR

The California Environmental Quality Act (CEQA), California Public Resources Code sections 21000 *et seq.* requires the District to prepare an Addendum to a previously certified EIR if some changes or additions are necessary for the project. The District has determined that some changes related to four existing mitigation measures (MM) adopted in the 2012 MMP that apply to the Solar Project are necessary and should be addressed in an Addendum. Section 2.1 and 3.2 discuss the need to revise MM-2c because it does not provide sufficient assurances that traffic congestion will not occur from truck hauling activities. Section 3.4 discusses the need to revise MM-2k, MM-3a and MM-3i to provide an equivalent current painting standard, to revise improper permit language, and to require campus parking demand and supply studies on a regular basis when a Facilities Master Plan (FMP) is not being updated.

2.0 PROJECT DESCRIPTION

The Solar Project will be developed on the 27.65-acre West Parcel located west of Grand Avenue and south of Temple Avenue. The property is currently undeveloped and the rolling hills and swales consist primarily of Venturan Coastal Sage Scrub and agricultural grazing habitat. The grading contract will create an approximately 10.6-acre pad, on which the 8.9-acre solar array will be installed. The elevation of the pad is 761 feet above mean sea level (msl) and the driveway entry at Grand Avenue is 730 feet msl. Access to the property is from southbound Grand Avenue only via a single driveway (Exhibit 1).

Exhibit 1
West Parcel Solar Project Truck Haul Route



2.1 MITIGATION MEASURE 2c

The 2012 MMP included mitigation measures for potential traffic impacts of the 2012 FMP. These mitigation measures included recommendations for reducing potential congestion impacts. One of the measures (MM-2c) applies specifically to construction truck haul routes and potential congestion during the am peak and pm peak periods, which reads:

2c. Prior to issuance of a grading permit Facilities Planning & Management shall consult with the City of Walnut on a Truck Route Plan for truck hauling activities with more than fifty (50) trucks per day. Hauling of earth materials shall only occur between 9:00 am and 2:00 pm Monday through Friday and between 8:00 am to 5:00 pm on Saturdays to avoid peak hour traffic. Light duty trucks with a weight of no more than 8,500 pounds are exempted from this restriction. Facilities Planning & Management shall ensure compliance.

MM-2c was adopted by the Board of Trustees for the 2012 FMP in December 2013. As stated in Table 1.3.1: Summary of Impacts in the 2012 Final EIR, MM-2c addressed the potential for construction vehicular traffic to create conflicts with peak hour traffic in the immediate campus area. It is now apparent that MM-2c will intrude into the Saturday pm peak hour and does not have the specificity needed for assessing truck hauling activities for the Solar Project or future campus projects that involve large amounts of earth, concrete or other construction debris. Therefore, an extensive congestion analysis for truck hauling (Appendix A) was completed by Iteris, Inc., based on recent traffic counts, to aid the District in assessing potential truck haul route impacts on the area circulation network.

2.2 PROPOSED TRUCK HAUL ROUTE

Based on subsequent plans for the Solar Project, including grading and landscape plans (Exhibit 2), a proposed 6.0-mile circular one-way truck haul route was defined (Exhibit 1) as the truck haul route to export earth from the borrow site (i.e. the Stadium hill) to the Solar Project site (West Parcel).

The proposed circular truck haul route will begin on Bonita Avenue south of Temple Avenue, proceed via a left-turn to Temple Avenue, continue westbound on Temple Avenue, proceed via a left-turn from Temple Avenue to Grand Avenue and proceed southbound to a temporary driveway at the West Parcel. Since Grand Avenue is a divided roadway, haul trucks entering or leaving the West Parcel site must only make right turns along Grand Avenue. Once the trucks dump their load on-site, they will exit the West Parcel driveway southbound on Grand Avenue, travel south on Grand Avenue to Valley Boulevard, turn left on Valley Boulevard, proceed to Temple Avenue in the City of Pomona, turn left on Temple Avenue, proceed westbound on Temple Avenue to Bonita Avenue and turn left onto Bonita Avenue to return to the borrow site (Exhibit 1).

West Parcel Solar Project Landscape Plan



Therefore, the critical movement at each area intersection is a left-turn movement. The critical movements at the West Parcel are right-turn movements entering and exiting the site (Exhibit 1).

3.0 ENVIRONMENTAL EVALUATION

The 2012 Final EIR addressed the export of earth from the Athletic Education Complex site located west of Hilmer Lodge Stadium and east of Bonita Avenue (the Stadium hill)] to the West Parcel in the air quality analysis (Tables 3.2.9 and 3.2.13).

Based on subsequent plans for the Solar Project, including grading and landscape plans (Exhibit 2), the above-described 6.0-mile circular one-way truck haul route was defined as the haul route to export earth from the borrow site (i.e. the Stadium hill) to the West Parcel.

As stated previously, the circular truck haul route would begin on Bonita Avenue south of Temple, proceed via a left-turn to Temple Avenue, westbound on Temple Avenue, a left-turn from Temple Avenue to Grand Avenue and proceed southbound to a temporary driveway at the West Parcel. Since Grand Avenue is a divided roadway, haul trucks entering or leaving the West Parcel must only make right turns.

Traffic counts on Grand Avenue along the Solar Project frontage were obtained during the Fall Semester (October 8 and 9, 2015) by Counts Unlimited, Inc. The Thursday, October 8th counts indicate the am peak volume was 2,064 trips and the pm peak volume was 1,728 trips (Appendix A).

3.1 TRUCK HAUL ANALYSIS

Iteris, Inc. completed a congestion analysis of the Solar Project truck haul route on November 18, 2015. The Iteris report is summarized herein and the complete report is included as Appendix A. The objective of the analysis was to determine what impact, if any, the haul trucks would have on traffic congestion along the haul route, at area intersections and whether operational restrictions should be imposed on truck haul route activities to assure traffic congestion due to truck hauling is not significant.

Tilden-Coil Constructors, Inc., construction manager for the Solar Project, in consultation with the truck haul contractor, provided key information for the analysis, including the cubic yardage imported, truck capacity, truck length, loading operations, construction equipment on-site and potential constraints.

Four primary intersections were analyzed in the truck haul congestion analysis: Grand Avenue/Temple Avenue, Bonita Avenue/Temple Avenue, Grand Avenue/Valley Boulevard and Valley Boulevard/Temple Avenue. La Puente Road/Grand Avenue was not analyzed since all truck traffic at this intersection is thru-trips and there is ample lane capacity.

The congestion analysis used the County of Los Angeles Level of Service (LOS) methodology that defines a significant impact related to the Level of Service for pre-project conditions (Table 2 in Appendix A). This methodology is more restrictive than the methodology used by the Metropolitan Transit Authority in Congestion Management Program traffic analyses. Therefore the Iteris analysis is a “worse case” analysis of congestion at area intersections. All four intersections studied operated at LOS A – C during the peak hours.

The Truck Haul Plan (THP) for the Solar Project includes import of approximately 163,571 cubic yards of earth from the borrow site (west of Hilmer Lodge Stadium) to the Solar Project site (West Parcel). The THP assumes that each haul truck is 40 feet in length and has a capacity of 14.0 cubic yards. Hauling may occur between the hours of 8:30 am and 4:30 pm only. The average vehicle travel times, based on simulated trips, required three (3) minutes from the borrow site to the West Parcel, and 10.5 minutes to return along the truck haul route from the West Parcel to the borrow site.

In addition to the intersection analysis, Iteris analyzed traffic flow along the truck haul route, the potential for congestion at the West Parcel driveway and the potential for congestion at the intersection left-turn pockets and a “gap analysis.” The later analysis identified gaps (i.e. spaces) between vehicles traveling southbound on Grand Avenue from 2:30 – 3:30 pm, the peak period for southbound traffic flow.

The gap analysis identified 27 gaps in traffic exceeding 15 seconds during the peak hour analyzed. This indicates there is ample space for truck traffic to travel south on Grand Avenue from Temple Avenue to the site driveway, or space for entering or leaving the West Parcel without disrupting traffic flow on Grand Avenue or causing delays for haul trucks entering or leaving the West Parcel.

If trucks are properly spaced (i.e., a distance of one or more lengths) truck hauling will pose no significant effects on traffic flow between intersections. The signalization of the Grand Avenue/Temple Avenue intersection poses no critical constraints on truck or vehicular travel. There are two left-turn lanes, two through lanes and one right-turn lane westbound at the Grand Avenue/Temple intersection.

Table 4
Existing Plus Construction Truck Hauling Intersection Peak Hour Level of Service

Intersection		Existing Conditions				Existing Plus Construction Conditions				Change in AM V/C	Change in PM V/C	Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS			
1	Grand Ave/Temple Ave	0.665	B	0.698	B	0.681	B	0.714	C	0.016	0.016	No
2	Bonita Ave/Temple Ave	0.570	A	0.568	A	0.602	B	0.599	A	0.032	0.031	No
3	Valley Blvd/Temple Ave	0.723	C	0.745	C	0.754	C	0.745	C	0.031	0.000	No
4	Grand Ave/Valley Blvd	0.670	B	0.756	C	0.685	B	0.756	C	0.015	0.000	No

Notes:

V/C = Volume to Capacity Ratio, LOS = Level of Service.

The existing and existing plus construction (i.e. with truck hauling) am peak hour change in volume/capacity (v/c) ratio ranged from 0.015–0.032. The pm change in volume/capacity ranged from 0.000–0.031 (See Table 4 in Appendix A and reproduced on the next page). A significant impact does not occur unless the v/c ratio is 0.04 or more for a LOS C in the pre-project condition. Therefore, turning movements at the intersections is not a critical factor in creation of congestion on the truck haul route. The truck haul activity will not result in a significant impact at any of the four intersections analyzed.

The number of trucks traveling westbound on Temple Avenue and entering the 260-foot left-turn pocket to proceed southbound on Grand Avenue may cause potential congestion. If there is not enough left-turn pocket length, the haul trucks may cause congestion for other vehicles attempting to also use the outside left-turn lane. This issue is more critical if the inner left-turn lane pocket is also full of vehicles and the haul truck arrives at the pocket when there is not 40 feet available for the haul truck length. In this situation, congestion may occur and other vehicles may experience less than free traffic flow in the inside thru-lane. Haul trucks should use the outer left-turn lane only.

While the haul truck operators cannot time their operations to avoid a red or yellow light at an intersection, or control the flow of other vehicles on westbound Temple Avenue before Grand Avenue, the operators can provide spacing between haul trucks by not allowing more than two trucks to exit the borrow site at the same time, and to have proper spacing between those trucks. The most feasible solution is to create space between haul trucks as they leave the borrow site, and use radio communication to assure haul trucks are not causing congestion near the left-turn pocket.

Therefore, trucks near the left-turn pocket at the Grand Avenue and Temple Avenue intersection is the key factor in determining if congestion will occur on the truck haul route to the West Parcel. Based on this analysis, if loaded trucks do not leave the borrow site under five (5) minutes apart, the left-turn pocket will not be congested. If departing trucks are monitored at the borrow site, remain in radio communication and personnel at the West Parcel control the entering and exiting of trucks at the West Parcel driveway, no significant congestion should occur.

To a lesser extent, congestion could also occur at the three other intersections studied, but because of the longer distance and travel time, it is easier to space haul trucks from each other and prevent congestion in the left-turn pockets at those three intersections. Of the remaining three intersections, the Valley Boulevard/Temple Avenue intersection has the most potential to experience congestion.

Therefore, radio communication and required staging of trucks between the borrow site and the West Parcel is a requirement of the construction logistics plan for the hauling contractor. The project manager(s) will also monitor haul truck departures and potential congestion at all intersections along the truck haul route. However, truck drivers are primarily responsible to maintain radio communication and create space between their truck and other haul trucks.

Up to 20 truck trips per hour may travel from the borrow site to the West Parcel without causing significant effects at area intersections or traffic flow near the left-turn pockets westbound at Temple Avenue and Grand Avenue. Therefore, 160 loads per day may occur and the total import yardage requires 73 days of truck hauling or three (3) months.

Iteris also analyzed the required width of the West Parcel driveway and haul truck turning radius to determine if trucks can enter and leave the driveway at the same time, and if the haul trucks have sufficient space to complete the turning movements (i.e. turning radius) without immediately disrupting traffic in the inner southbound lane of Grand Avenue. The analysis determined the trucks have sufficient space for their turning movements, and trucks entering and leaving the West Parcel can do so at the same time if the driveway is at least 40-feet in width.

Therefore, the Iteris analysis demonstrates, with the required radio communication and spacing criteria, that the proposed THP for the Solar Project for importing 163,571 cubic yards of earth can be accomplished without causing significant traffic impacts at area intersections, at the West Parcel driveway or along the designated truck haul route.

Based on the Iteris analysis of the proposed truck hauling for earth import to the West Parcel, the following requirements are included in the construction logistics plan as site-specific Mitigation Measures for the Truck Hauling Plan for earth import to the West Parcel:

1. All truck hauling from the borrow site to the West Parcel shall have radio communication to assure that trucks do not create traffic congestion at area intersections, in the left-turn pocket at Grand Avenue and Temple Avenue and at the West Parcel driveway. In addition, haul trucks on the designated truck haul route shall be spaced to assure that trucks do not impede traffic flow along the truck haul route. Facilities Planning & Management shall ensure compliance.
2. All construction hauling for the Solar Project shall occur between the hours of 8:30 am to 4:30 pm Monday through Saturday to avoid the am and pm peak hour traffic along the truck haul route. Facilities Planning & Management shall ensure compliance.

3. The hauling contractor shall maintain radio communication with all trucks at all times, and have a designated person at both the West Parcel and at the borrow site who can inform truck drivers at the borrow site if the truck spacing needs to be adjusted. All truck drivers shall be oriented to the hauling and communication procedures prior to initiating haul activities. The project manager(s) shall monitor truck hauling to assure spacing requirements and hauling activities do not exceed the requirements. Facilities Planning & Management shall ensure compliance.
4. Haul truck drivers shall be instructed to maintain proper spacing along the entire return route from the West Parcel to the borrow site. When needed, the drivers should be in radio communication along the return route to prevent congestion. However, visual contact between trucks may be sufficient to provide spacing without significant radio communication on the return truck haul route. Facilities Planning & Management shall ensure compliance.
5. For 95% of the time, drivers shall maintain a minimum of 80 feet separation between trucks on the return route from the West Parcel to the borrow site on roadway links. This restriction does not apply to intersections, where signalization may cause delays. Facilities Planning & Management shall ensure compliance.
6. The revised Mitigation Measure 2c (MM-2c) in Section 3.2 herein and the five mitigation measures listed above shall be included in the site-specific Mitigation Monitoring Program (MMP) for the Solar Project. Facilities Planning & Management shall ensure compliance.

3.2 REVISED MITIGATION MEASURE 2c

Based on the Iteris analysis, the following mitigation measure will replace MM-2c in the 2012 Mitigation Monitoring Program and will be required of the Solar Project.

2c. For hauling operations of more than 15 trucks per hour and more than 100,000 cubic yards, a Truck Haul Plan (THP) approved by the Director of Facilities Planning & Management, shall be implemented. The THP shall consider traffic counts, haul routes, hours/days of hauling, avoidance of peak hours, intersection geometrics, access/egress constraints, truck load capacity, and pieces of construction equipment on-site and shall specify requirements to minimize traffic and pedestrian congestion on-campus and off-campus. The THP shall be required in all applicable construction logistics plans. If necessary, all haul trucks shall utilize radio communication to improve traffic flow and minimize congestion. Light duty trucks with a weight of no more than 8,500 pounds are exempted from a THP. Facilities Planning & Management shall ensure compliance.

Please note that the trucks per hour and cubic yardage quantities stated in the revised mitigation measure are not components of a site-specific THP, but a threshold defining when a THP is required for an individual site-specific project. There may be special circumstances in the future that would require a THP with activities below the stated limits. The District must exercise sound judgment related to each future project. A special circumstances limitation is often used in CEQA analysis (e.g. a Categorical Exemption is not always applicable to a project, even though the project meets the stated criteria). The decision requires determination of the facts for each project, and whether a potential environmental impact is probable.

3.3 ADDENDUM JUSTIFICATION

Section 15164 of the *CEQA Guidelines* is quoted verbatim below, along with an evaluation of how the changes in MM-2c relate to the Guidelines.

(a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.

As stated in Section 2.1, the changes and additions proposed in this Addendum relate primarily to Mitigation Measure MM-2c and the truck hauling procedures to assure that earth import to the West Parcel do not cause significant impacts and congestion during the am and pm peak periods. The conditions stated in Section 15162 that would require preparation of a subsequent EIR are discussed below in Section (e), but are not met here.

(b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for preparation of a subsequent EIR or negative declaration have occurred.

The initial CEQA documentation for the 2012 FMP was an EIR so Section (b) is not applicable.

(c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

This Addendum is not being circulated for public review, but is available to the public as part of the public record for the January 13, 2016 Board of Trustees monthly meeting. The agenda for the meeting has been posted both on campus and on the District's website.

(d) The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.

The Board of Trustees will consider this Addendum along with the 2012 Final EIR on January 13, 2016.

(e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

A brief explanation not to prepare a subsequent EIR is stated herein, and is included in the record. The explanation is supported by substantial evidence within this Addendum. A subsequent EIR is not being prepared for the reasons given below:

Reasons for Not Preparing a Subsequent EIR

Section 15162 of the *CEQA Guidelines* is quoted verbatim below, along with an evaluation of how the changes in MM-2c relate to the *CEQA Guidelines*.

(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

The changes proposed to the 2012 Final EIR in revising MM-2c are not major revisions. Mitigation Measure (MM-2c) addresses reduction of traffic congestion during the am and pm peak hours while construction truck hauling takes place. The changes proposed will further assure that potential impacts of truck hauling from the borrow site to the West Parcel do not result in significant impacts during the am and peak periods and during the hauling period on the area circulation network.

The changes proposed assure that congestion will not occur because trucks will utilize radio communication, will be properly spaced and will not be on the same roadway segment in close formation at the same time. In addition, separation of trucks departing the borrow site with loads, or departing the West Parcel will be assured by using radio-control of when trucks may travel, and when trucks may not travel. Separation assures no significant impacts will occur at area intersections. The Iteris analysis has also evaluated the timing of the traffic signals at both the Grand/Temple Avenue and Bonita/Temple Avenue intersections.

Since the 2012 Final EIR evaluated the potential impacts of importing more earth than the current site-specific Solar Project, there is no increase in significant effects for earth import. The earth quantity has been reduced from 261,000 cubic yards to 163,571 cubic yards.

The change in mitigation does not result in any new significant effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

The circumstances under which the Solar Project is undertaken are similar to those described in the 2012 Final EIR. Both the prior mitigation and the revised mitigation measure assume truck hauling would occur near campus and that haul trucks may involve more than 50 trucks per day.

The truck hauling plan for the Solar Project limits hauling to 20 truckloads per hour. The prior mitigation assumed 34 hours of hauling per week. The new site-specific Solar Project mitigation measure includes 48 hours per week, but imposes strict conditions to prevent congestion, restricts truck hauling to the non-peak hours, and requires radio communication to provide separation between trucks on the truck haul route.

These requirements assure haul trucks have no significant impact near the left-turn pockets, on traffic flow along Temple Avenue or Grand Avenue, or result in congestion near the West Parcel driveway at the Solar Project site.

The temporary 40-foot wide West Parcel driveway is designed to allow trucks to enter and leave the Solar Project site without congestion because the permanent driveway is too narrow for two haul trucks. As demonstrated in the Iteris congestion analysis, which includes a gap analysis along Grand Avenue south of Temple Avenue based on signal timing, trucks may traverse the truck haul route without causing significant effects on traffic flow or turning movements at area intersections.

There are no new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

No new significant effects of the hauling activities have been identified and truck hauling is restricted to non-peak hours: 8:30 am to 4:30 pm.

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

The significant effects previously identified in the 2012 Final EIR are not substantially more severe for the Solar Project. In regards to hauling, MM-2c did not avoid the Saturday peak hours by allowing truck hauling from 8:00 am to 5:00 pm. However, weekend trips near the Solar Project site are substantially lower than weekday trips because Grand Avenue is a major commuting route for employees of the City of Industry business parks and is used by many Mt. SAC commuters.

Approximately twenty-four (24) percent of campus trips use Grand Avenue south of Temple Avenue daily during weekdays. In addition, the amount of earth imported has been reduced substantially from that assumed in the 2012 Final EIR.

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

No mitigation measures or alternatives were identified as infeasible in the 2012 Final EIR. Therefore, this situation is not applicable to the Solar Project.

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The new specificity of the revised MM-2c and truck haul route procedures identified for importing earth to the West Parcel will reduce the potential impacts of hauling on area intersections, and at roadway links (i.e. segments). Separation of trucks on area roadways, in and of itself, improves traffic flow because drivers are not trying to avoid trucks near their vehicles. The revisions to MM-2c are similar to those in the original mitigation measure and are not considerably different than the original MM-2c analyzed in the 2012 EIR.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

A Final EIR was prepared for the 2012 FMP, not a negative declaration. Therefore, this section is not applicable to the Solar Project.

(c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

The conditions cited above do not require reopening of the prior approval of the Final EIR for the 2012 FMP. As explained above, the conditions in subdivision (a) will not occur.

(d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.

Since a Subsequent EIR is not required, this section is not applicable.

3.4 REVISED MITIGATION MEASURES 2k, 3a and 3i

The changes recommended to MM-2k, MM-3a, and MM-3i below are not related to the THP, but are included in the 2012 MMP. MM-2k is revised since the parking supply needs to be based on the revised student enrollment projections and be regularly updated, even if a new traffic study is not being completed for a future FMP update. MM-3a clarifies the procedures for the South Coast Air Quality Management District (SCAQMD) Best Available Control Measures (BACM) written agreement. MM-3i is revised to use an equivalent standard used by painting contractors. The current and revised mitigation measures are listed below. The change is not significant and no new effects result from the change.

Current MM-2k: *The college shall provide approximately 8,825 parking spaces by 2020, and approximately 11,025 spaces by 2025. The parking totals exclude the 50 on-street metered spaces along Temple Avenue. 2025 Student projections and parking requirements shall be updated by 2020. The Public Safety Department shall monitor compliance.*

Revised MM-2k: *Beginning in 2015, whenever a traffic/parking study for a Facilities Master Plan has not been completed in five (5) years, a new parking study shall be completed. The parking study shall specify the total parking supply required and a timeframe for providing the required number of campus parking spaces. Facilities Planning & Management shall ensure compliance.*

MM-2k is being revised because the student enrollment upon which the current MM-2k is based is now outdated. Therefore, the parking demand and supply targets are no longer appropriate. The Revised MM-2k requires new parking studies to be completed every five years if a FMP has not included the parking analysis. Since the parking supply mitigation would be provided before the impact, no new impact would occur.

Current MM-3a. *All contractors shall comply with all feasible Best Available Control Measures (BACM) included in Rule 403 included in Table 1: Best Available Control Measures Applicable to All Construction Activity Sources. In addition, the project shall comply with at least one of the following Track-Out Control Options: (a) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long, (b) Pave the surface extending at least 100 feet and a width of at least 20 feet wide, (c) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle under carriages before vehicles exit the site, (d) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site, (e) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified items (a) through (d) above. Individual BACM in Table 1 that are not applicable to the project or infeasible, based on additional new project information, may be omitted only if Planning Facilities Planning & Management specifies in a written agreement with the applicant that specific BACM measures may be omitted. Any clarifications, additions, selections of alternative measures, or specificity required to implement the required BACM for the project shall be included in the written agreement. The written agreement shall be completed prior to issuance of a demolition and/or grading permit for a project. The Planning Facilities Planning & Management shall include the written agreement within the Mitigation Monitoring Program for the project and Facilities Planning & Management shall ensure compliance.*

Revised MM-3a (Changes indicated in **bold type**). *All contractors shall comply with all feasible Best Available Control Measures (BACM) included in **South Coast Air Quality Management District (SCAQMD) Rule 403: Fugitive Dust** included in Table 1: Best Available Control Measures Applicable to All Construction Activity Sources. In addition, the project shall comply with at least one of the following Track-Out Control Options: (a) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long, (b) Pave the surface extending at least 100 feet and a width of at least 20 feet wide, (c) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site, (d) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site, (e) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified items (a) through (d) above. Individual BACM in Table 1 that are not applicable to the project or infeasible, based on additional new project information, may be omitted only if Facilities Planning & Management specifies in a written agreement with the applicant that specific BACM measures may be omitted. Any clarifications, additions, selections of alternative measures, or specificity required to implement the required BACM for the project shall be included in the written agreement. The written agreement shall be completed **prior to demolition and/or grading for a project**. Facilities Planning & Management shall include the written agreement within the Mitigation Monitoring Program for the project and Facilities Planning & Management shall ensure compliance.*

MM-3a in the 2012 MMP is revised because the District does not issue demolition or grading permits for its construction projects. The District approves contracts for demolition or grading activities for their projects. As indicated in some public comments, the initial language may be misinterpreted that permits are required from outside agencies. The 2012 MMP and the 2012 Final EIR Facts and Findings did not state the involvement of any outside agencies in this regard. The change is not significant and no new effects result from the change.

Current MM-3i. *To reduce VOC emissions, all construction contracts shall specify the use of paint with low VOC emissions (ROG emission rate of less than 0.80 pounds per gallon), limit painting to eight hours per day, use paint thickness of 0.75 millimeters or less, use water-based and low-VOC coatings with ROG/VOC emissions of less than 8.0 pounds per 1,000 square feet of painted surface, and use high-volume, low pressure sprayers. Facilities Planning & Management shall ensure compliance.*

Revised MM-3i. *To reduce Volatile Organic Compounds (VOC) emissions, all construction contracts shall limit painting to eight hours per day and specify the use of paints and coatings with a VOC content of 80 grams per liter (g/l) or less. Facilities Planning & Management shall ensure compliance.*

MM-3i in the 2012 MMP will be revised to an equivalent standard based on current industry practices. The metric of 0.80 pounds per gallon translates to approximately 80 grams per liter and, for paints, ROG is essentially the same as VOCs. (CalEEMod, App. A.) Further, the painting thickness restriction is no longer necessary since paint thickness is irrelevant in the current air quality model—CalEEMod. Paint thickness was a necessary data input for the now defunct former air quality model—URBEMIS. (See URBEMIS Software User’s Guide.) The current and revised mitigation measures are listed above. The change is not significant and no new significant effects result from the change.

3.5 CEQA CONCLUSIONS

The analysis included herein demonstrates that the revisions to MM-2c do not create new environmental impacts or increase the severity of previously identified impacts for development of the 2012 FMP. The revised MM-2c and the implementation procedures for truck hauling from the borrow site to the West Parcel will avoid peak hour impacts, assure traffic flow is maintained and assure traffic congestion from truck hauling operations does not result in congestion at area intersections, near the left-turn pockets or on adjacent roadway links.

The revisions to MM-2k, MM-3a and MM-3i are minor changes, and involve equivalent mitigation measures specifying when campus parking studies must be updated, removal of grading permits, since the District does not require them, and alignment of reduction of VOC emissions.

4.0 BIBLIOGRAPHY

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Memorandum to Gary Nellesen, CEQA Clearances for the West Parcel Solar (WPS) Project (Site-Specific Plans), Sid Lindmark, AICP, September 9, 2015

Appendix G: Environmental Checklist Form for the West Parcel Solar (WPS) Project, Sid Lindmark, AICP, September 9, 2015

URBEMIS Software User's Guide: URBEMIS2007 for Windows: Version 9.2 Emissions Estimation for Land Use Development Projects, Jones & Stokes Associates, November 2007.

5.0 APPENDIX

A. *West Parcel Solar Truck Haul Congestion Analysis*, Iteris, Inc., November 18, 2015.

TECHNICAL MEMORANDUM

To: Gary Nellesen, Mt San Antonio College

From: Viggen Davidian, P.E., Iteris Inc.

Date: November 18, 2015

Subject: West Parcel Solar Truck Haul Congestion Analysis

1. INTRODUCTION

This memorandum presents Iteris' assessment of the potential traffic impacts related to the West Parcel Solar (WPS) project construction truck hauling activities in the City of Walnut. This report contains the evaluation of intersection traffic operations in the existing conditions and operations with the proposed construction conditions. In addition, data from field surveys of traffic conditions along Grand Avenue in the vicinity of the future construction site will be presented in order to assess the ingress and egress of trucks at the construction site.

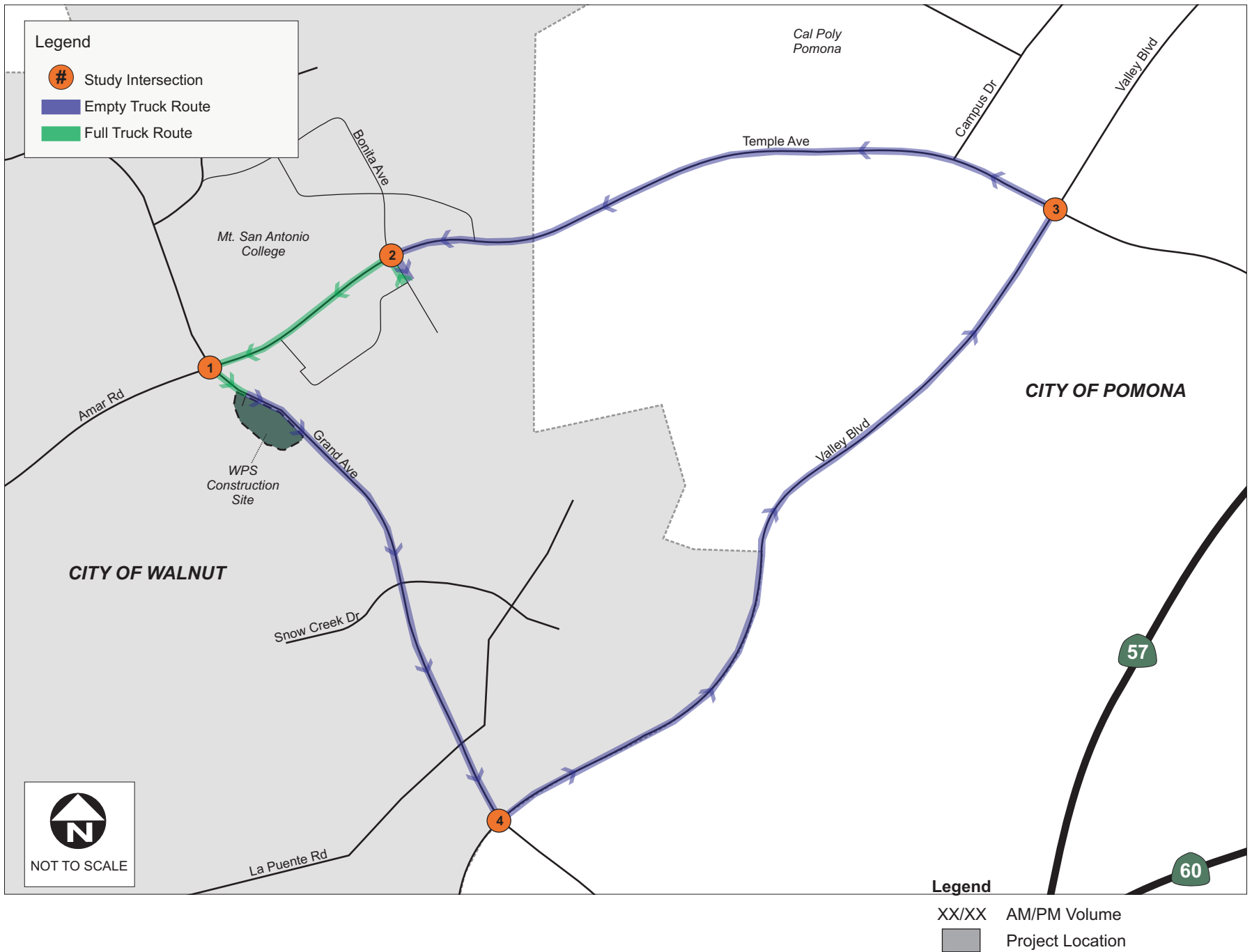
The first leg of the haul route, where trucks are fully loaded, is planned to start from the dirt hill adjacent to Hilmer Lodge Stadium on the Mt. SAC campus and end at the WPS construction site along Grand Avenue approximately 1,000 feet southeast of Temple Avenue. Trucks would fill up at the hill site, or borrow site, and travel to the WPS construction site to dump their load. The second leg of the haul route, where trucks are empty, would begin at the WPS construction site and loop around Grand Avenue, Valley Boulevard, and Temple Avenue back to the hill site. **Figure 1** shows the propose route.

The following four intersections along the proposed haul route are analyzed as part of this report:

1. Grand Avenue/Temple Avenue (City of Walnut);
2. Bonita Avenue/Temple Avenue (City of Walnut);
3. Valley Boulevard/Temple Avenue (City of Pomona); and
4. Grand Avenue/Valley Boulevard (Cities of Walnut and Pomona).

While the Grand Avenue/La Puente Avenue Road intersection is also a signalized intersection along the proposed return route (empty truck route), it is not expected that truck traffic making only a southbound through movement would impact the intersection operations. Thus, this intersection was not analyzed. Storage space for vehicles queued at through movements are not limited in same manner as storage space for vehicles queued at left-turn movements.

Figure 2 shows the location of the intersections analyzed in this memorandum.





2. TRAFFIC OPERATIONS METHODOLOGY

The quality of traffic operations is characterized using the concept of level of service (LOS). Level of service is defined by a range of grades from A (best) to F (worst). At intersections, LOS “A” represents relatively free operating conditions with little or no delay. LOS “F” is characterized by extremely unstable flow conditions and severe congestion with volumes at or near the intersection’s design capacity. This results in long queues backing up from all approaches to intersections.

In this report, analysis of traffic operations was conducted according to the Los Angeles County traffic impact analysis guidelines. Utilizing these guidelines, intersection operating conditions were quantified using the Intersection Capacity Utilization (ICU) method. Volume-to-capacity (V/C) ratios and corresponding levels of service (LOS) were calculated at study intersections during the weekday a.m. and p.m. peak hours most closely matching the construction time periods. LOS analyses for all study intersections were conducted using TRAFFIX software. **Table 1** presents a brief description of each level of service letter grade, as well as the range of V/C ratios associated with each grade for signalized intersections.

TABLE 1: INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description	Intersection Volume to Capacity (V/C) Ratio
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	0.000-0.600
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	>0.600-0.700
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	>0.700-0.800
D	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues.	>0.800-0.900
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	>0.900-1.000
F	Forced flow. Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	> 1.000

This analysis conservatively utilizes the Los Angeles County Public Works traffic impact review guidelines, which state that a project’s traffic impact is evaluated based on ICU and is considered significant if the change in volume to capacity ratio (V/C) relative to the “without project” signalized

intersection level of service (LOS) meets or exceeds the thresholds contained in **Table 2** below. These guidelines are more stringent than the Los Angeles County Metropolitan Transportation Authority (LACMTA) guidelines which were used in the 2008 traffic impact analysis for the Mt. SAC Master Plan Update EIR.

TABLE 2: INTERSECTION SIGNIFICANT IMPACT CRITERIA

Intersection LOS in Pre-Project Conditions	V/C	Project V/C Increase
C	0.71 to 0.80	0.04 or more
D	0.81 to 0.90	0.02 or more
E / F	0.91 or more	0.01 or more

3. EXISTING CONDITIONS

This section presents the existing conditions of the study area. Existing intersection traffic counts were collected on October 1, 2015 during the a.m. peak period (7:00 – 9:00 a.m.) and the p.m. peak period (4:00 – 6:00 p.m.) on a typical weekday. The volumes collected between 8:00 to 9:00 a.m. and 4:00 to 5:00 p.m. were used in this analysis to be most consistent with the truck hauling process which is planned to occur between 8:30 a.m. and 4:30 p.m. on weekdays. **Figure 3** shows the existing traffic volumes at the study intersections. Existing traffic count data is provided in **Appendix A**.

A level of service analysis was conducted to evaluate existing intersection operations during the a.m. and p.m. peak hours at the six study intersections. **Table 3** summarizes the existing LOS at the study intersections. LOS calculations sheets are provided in **Appendix B**.

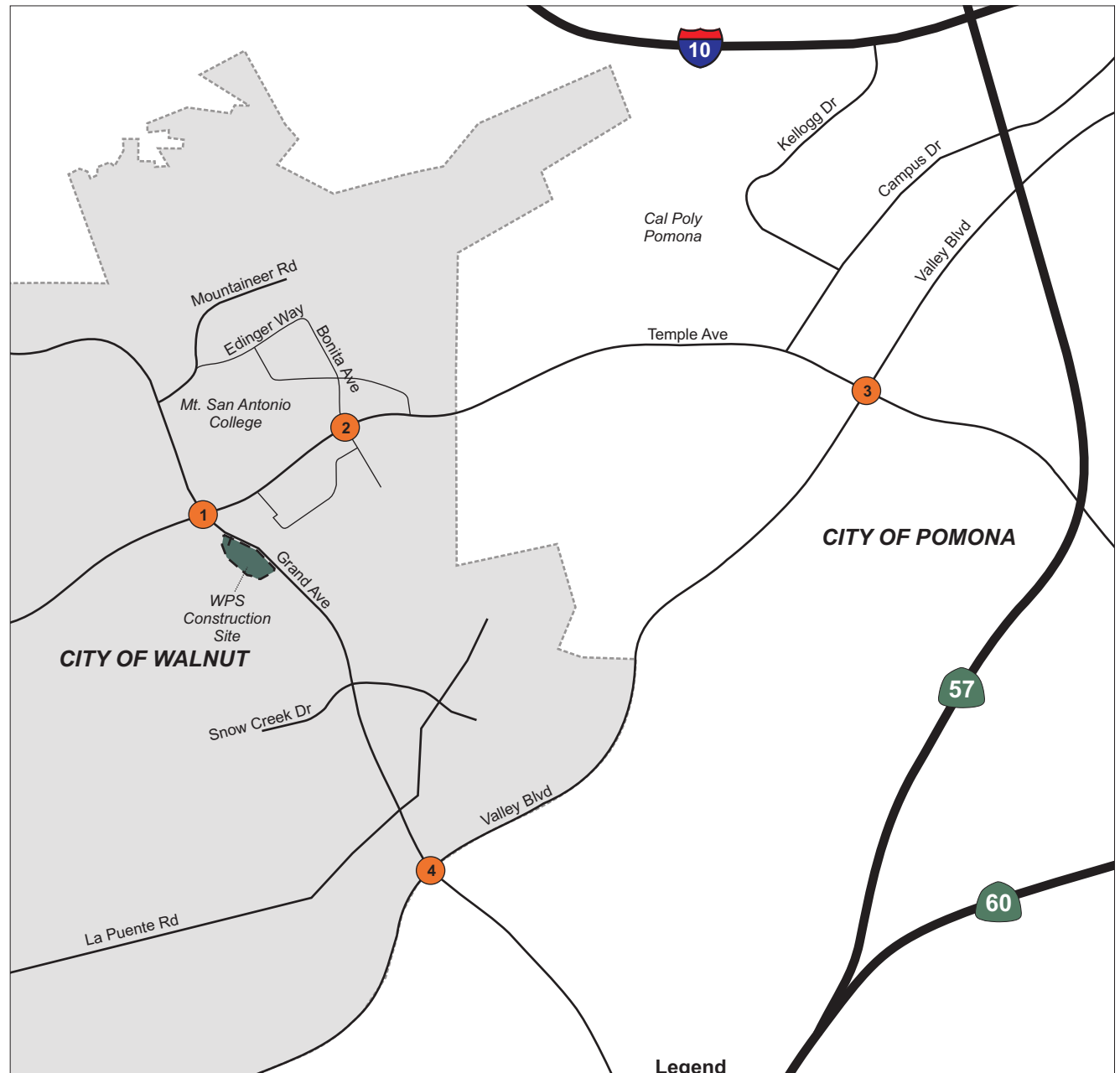
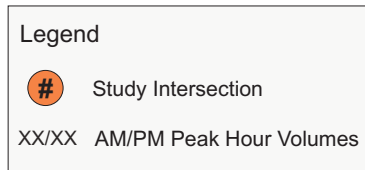
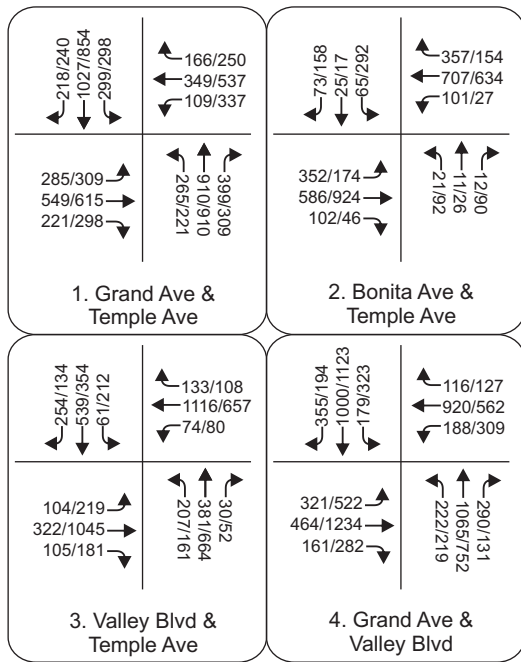
TABLE 3: EXISTING INTERSECTION PEAK HOUR LEVEL OF SERVICE

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1 Grand Ave/Temple Ave	Signalized	0.665	B	0.698	B
2 Bonita Ave/Temple Ave	Signalized	0.570	A	0.568	A
3 Valley Blvd/Temple Ave	Signalized	0.723	C	0.745	C
4 Grand Ave/Valley Blvd	Signalized	0.670	B	0.756	C

Notes:

V/C = Volume to Capacity Ratio, LOS = Level of Service.

As shown in **Table 3**, all study intersections are currently operating at LOS C or better.



4. CONSTRUCTION TRAFFIC

This section summarizes the total truck traffic forecast to be generated by construction activities related to trucks hauling dirt from the borrow site to the construction site as well as trucks returning from the construction site back to the borrow site. A limiting factor regarding the amount of trucks that can be accommodated within the circulation network are the existing left-turn pocket storage lengths at the four study intersections, where left-turn movements would be made. These storage lengths are as follows:

- Grand Avenue/Temple Avenue – 260' WB left-turn pocket length
- Bonita Avenue/Temple Avenue – 170' NB left-turn pocket length and 120' WB left-turn pocket length
- Valley Boulevard/Temple Avenue – 180' NB left-turn pocket length
- Grand Avenue/Valley Boulevard – 250' SB left-turn pocket length

Based on these pocket lengths and the 40' length of the typical truck, it is recommended that, in order to avoid queue back up outside a left-turn pocket, no more than two trucks exit the borrow site at the same time. Ideally, each truck would leave the borrow and construction sites no more than every three minutes, resulting in a total of 20 trucks per hour.

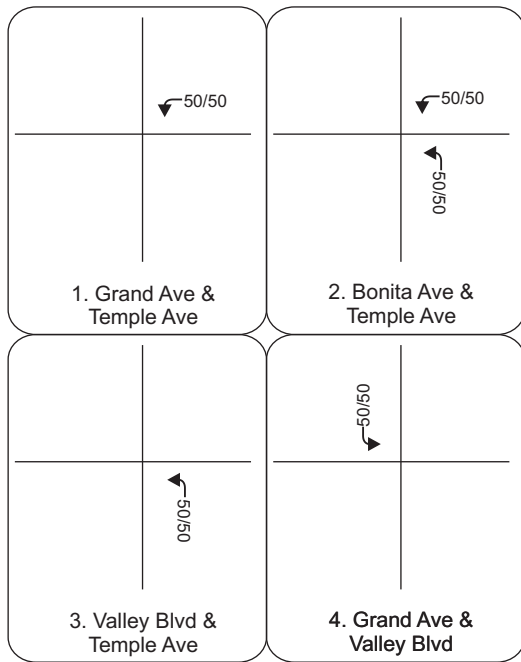
The process used to calculate the total number of days needed for construction assuming 20 trucks hauling dirt to the construction site per hour, as well as the Passenger Car Equivalent (PCE) truck trips, is summarized as follows:

- A total of 163,571 cubic yards of dirt is expected to be hauled (provided by Psomas)
- The capacity of a 40' truck, to be used for this construction, is 14 cubic yards
- As a result, a total of 11,684 truck loads are required:
 - $163,571 / 14 = 11,684$ truck loads
- Construction would occur for a total of 8 hours a day
- As a result, a total 160 truck loads would be delivered per day:
 - $20 \text{ truck loads per hour} \times 8 \text{ hours a day} = 160 \text{ truck loads per day}$
- As a result, the construction period is expected to last approximately 73 days:
 - $11,684 \text{ truck loads} / 160 \text{ truck loads per day} = 73 \text{ days}$
- Based on the 40' truck size, a PCE factor of 2.5 passenger vehicles per truck is assumed, resulting in approximately 50 PCE trips per hour generated at each site:
 - $20 \text{ truck trips} \times 2.5 \text{ vehicles per truck} = 50 \text{ PCE-adjusted trips}$

Figure 4 shows the assignment of PCE-adjusted truck trips within the study area during the a.m. and p.m. peak hours.

5. EXISTING PLUS CONSTRUCTION CONDITIONS

This section summarizes the traffic operations of the study intersections for existing conditions with the construction truck hauling activities. **Figure 5** shows the existing plus construction traffic volumes which include the PCE-adjusted truck volumes at the study intersections. **Table 4** summarizes the existing plus construction LOS at the study intersections. LOS calculations sheets are provided in **Appendix B**.



Note:
The truck volumes shown have been adjusted to
Passenger Car Equivalent (PCE) trips using a PCE factor of 2.5



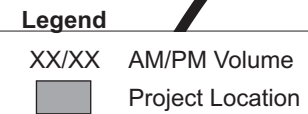
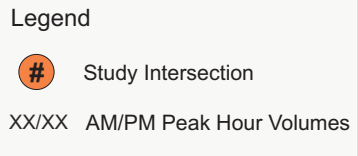
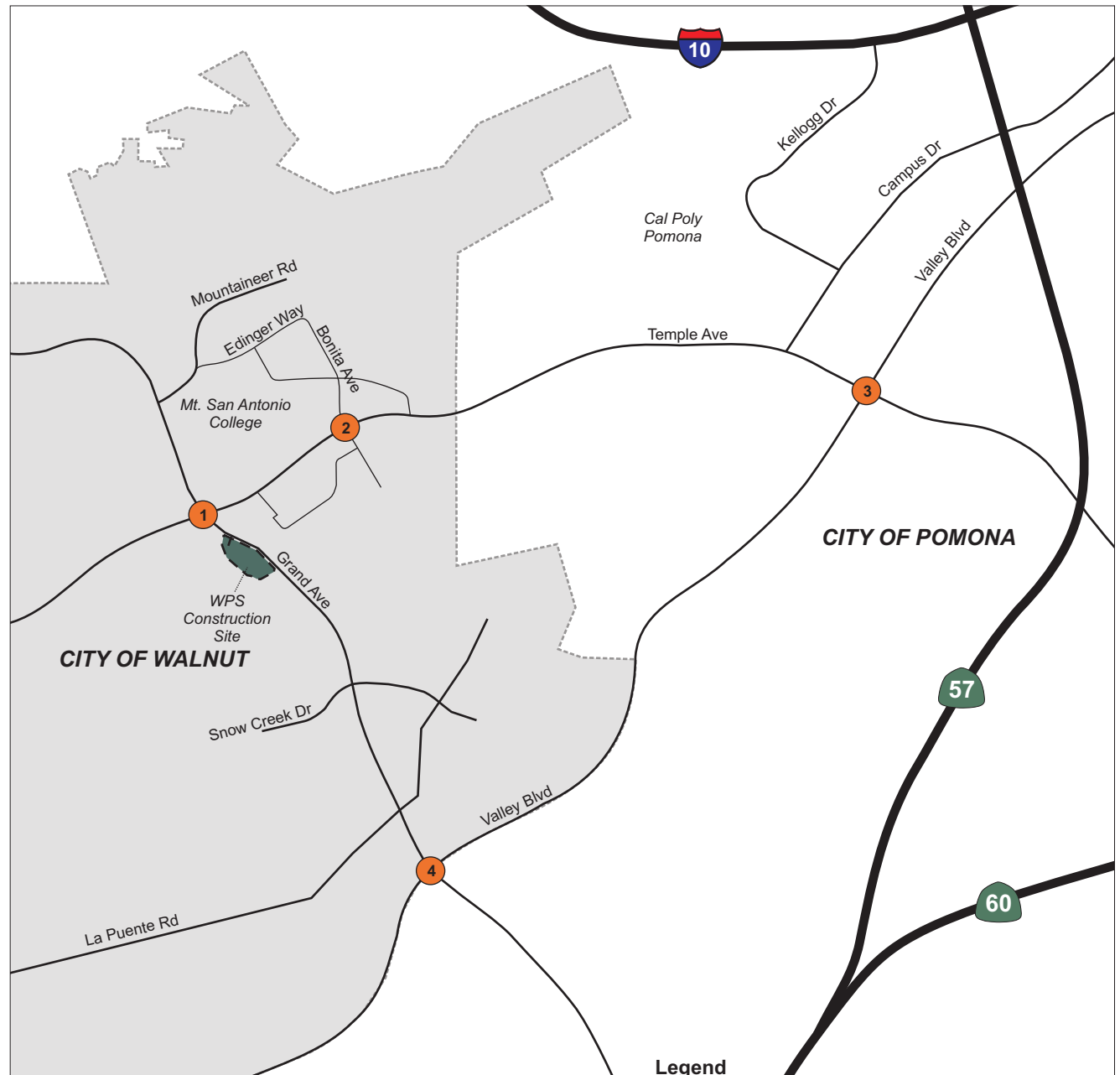
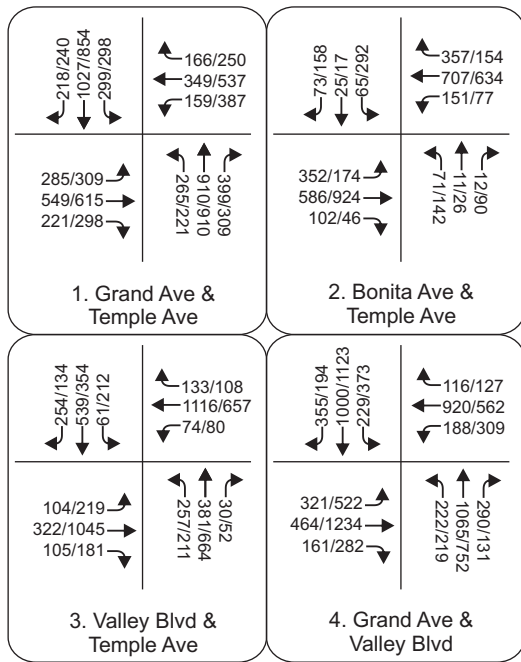


TABLE 4: EXISTING PLUS CONSTRUCTION INTERSECTION PEAK HOUR LEVEL OF SERVICE

Intersection		Existing Conditions				Existing Plus Construction Conditions				Change in AM V/C	Change in PM V/C	Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS			
1	Grand Ave/Temple Ave	0.665	B	0.698	B	0.681	B	0.714	C	0.016	0.016	No
2	Bonita Ave/Temple Ave	0.570	A	0.568	A	0.602	B	0.599	A	0.032	0.031	No
3	Valley Blvd/Temple Ave	0.723	C	0.745	C	0.754	C	0.745	C	0.031	0.000	No
4	Grand Ave/Valley Blvd	0.670	B	0.756	C	0.685	B	0.756	C	0.015	0.000	No

Notes:

V/C = Volume to Capacity Ratio, LOS = Level of Service.

As shown in **Table 4**, assuming the additional PCE-adjusted truck trips in the circulation network, the study intersections are forecast to continue to operate at LOS C or better during both peak hours. As also shown, the truck hauling activities are not forecast to result in any significant traffic impacts based on LA County thresholds of significance.

6. CONSTRUCTION TRAFFIC INGRESS / EGRESS ANALYSIS

Iteris staff performed a recent site visit during a typical weekday to observe the following:

- Gaps in southbound Grand Avenue traffic south of Temple Avenue.
- Average vehicle travel time from borrow site to fill site and from fill site back to borrow site.

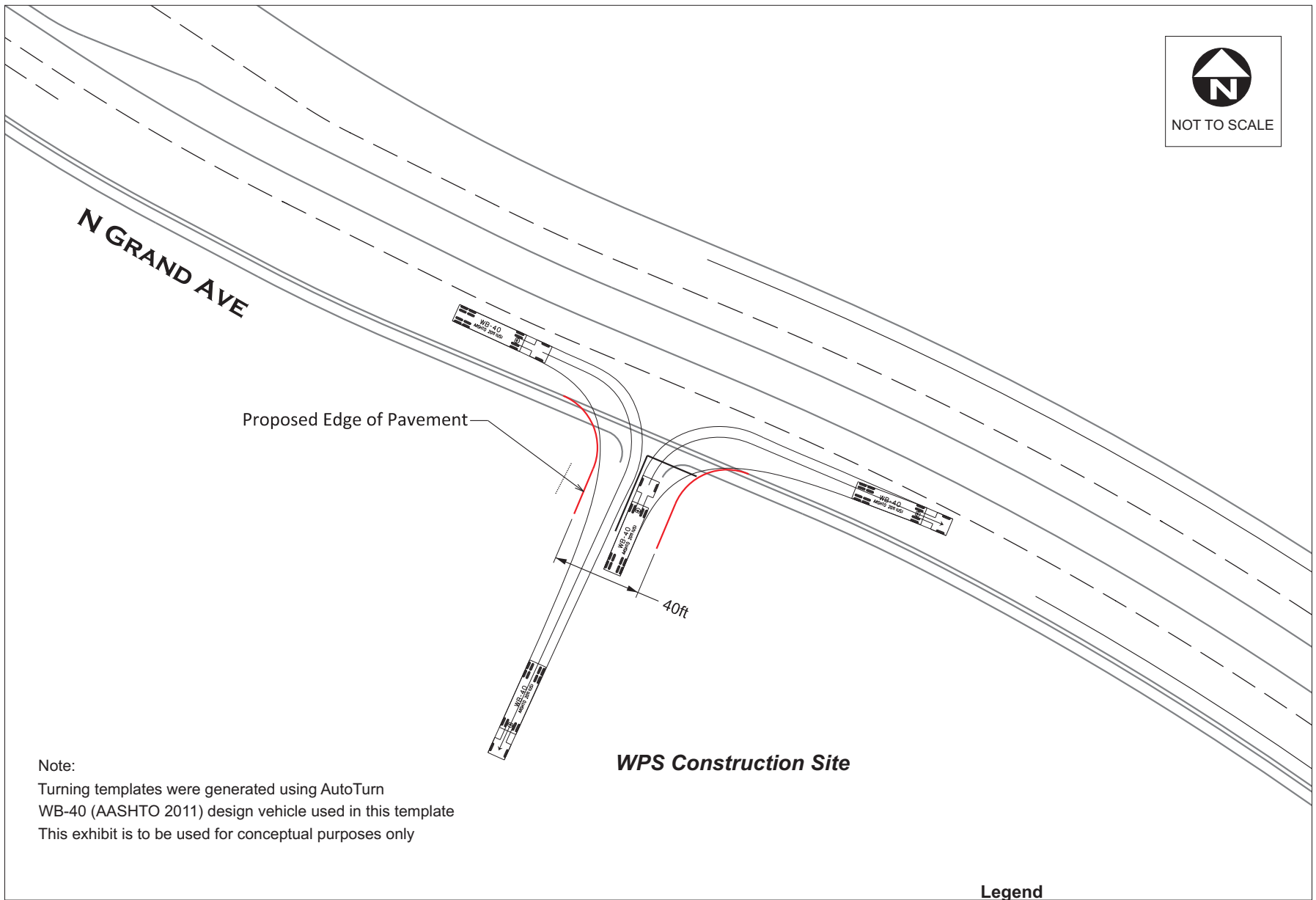
The Gap Analysis was performed from 2:30 – 3:30 p.m., which represents peak southbound Grand Avenue volume conditions. During this hour, a total of 27 gaps in traffic exceeding 15 seconds were observed. Based on these observed gaps in traffic, it can be expected that 20 trucks could exit the construction site per hour and not create a significant delay to southbound Grand Avenue traffic.

The following average vehicle travel times were observed during the site visit, utilizing the proposed routes shown in **Figure 1**:

- Borrow Site to Construction Site: 3 minutes
- Construction Site to Borrow Site: 10 minutes and 30 seconds

It can be expected that a truck traveling along these routes would experience slightly higher travel times due to lower speeds of travel.

In order for the construction site driveway along Grand Avenue to accommodate the rare situation where trucks would be exiting and entering the site at the same time, it is recommended that the driveway be at least 40 feet wide. **Figure 6** shows an example of the turning path of trucks at the driveway, developed using the AutoTurn software package, requiring the 40 foot width in order to adequately facilitate the truck movements. It is recommended that radio communication be used between truck operators waiting to exit the borrow site and construction staff at the construction site. This would ensure that entering and exiting trucks are spaced accordingly.



7. CONCLUSIONS

All study intersections are currently operating at LOS C or better. Assuming the additional PCE-adjusted truck trips in the circulation network, the study intersections are forecast to continue to operate at LOS C or better during both peak hours.

Based on the proposed hauling requirements and LA County thresholds of significance, it is forecast that up to 20 trucks per hour could be added to the circulation network without causing a significant impact to the study intersections. In addition to intersection LOS, available turn pocket storage lengths at the study intersections are a limiting factor in the amount of trucks that can operate per hour along the route.

In order for the construction site driveway along Grand Avenue to accommodate the rare situation where trucks would be exiting and entering the site at the same time, it is recommended that the driveway be at least 40 feet wide. It is recommended that radio communication be used between truck operators waiting to exit the borrow site and construction staff at the construction site. This would ensure that entering and exiting trucks are spaced accordingly.

APPENDIX A – TRAFFIC COUNTS

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Walnut
N/S: Grand Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTGRTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

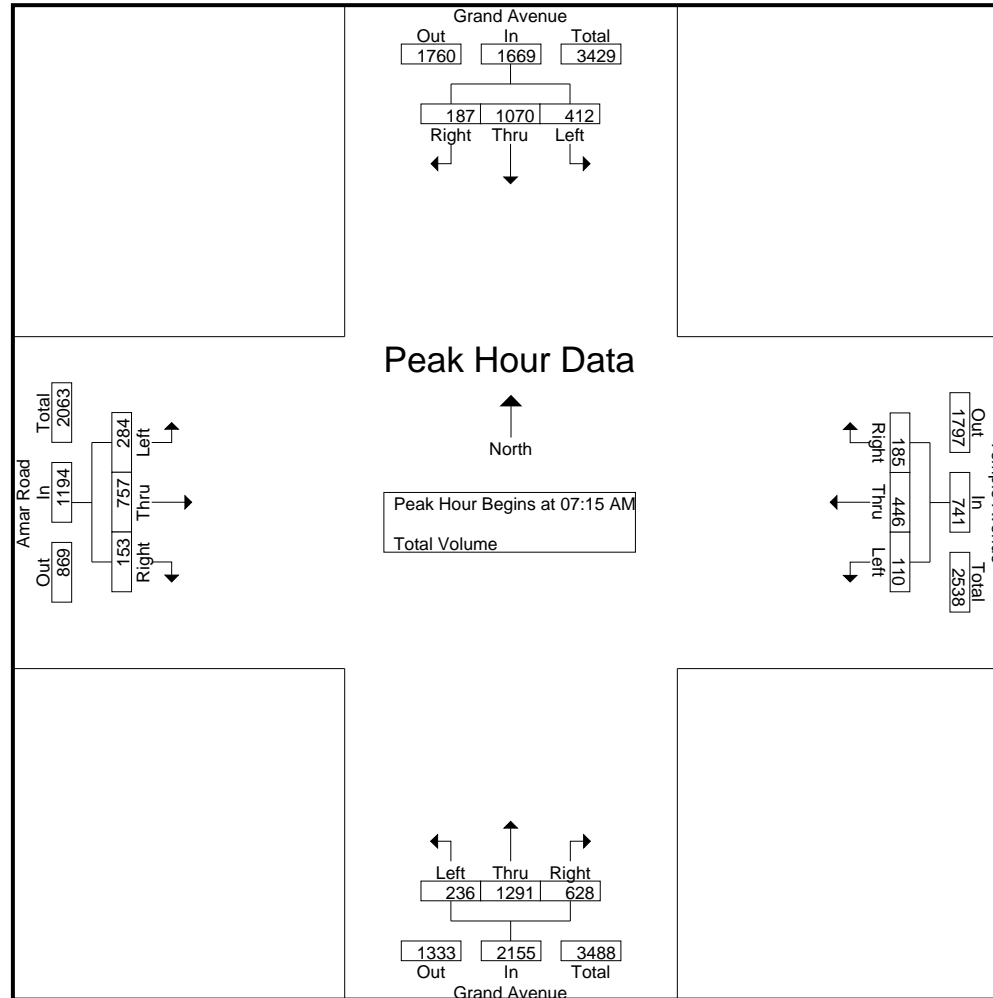
Groups Printed- Total Volume

	Grand Avenue Southbound					Temple Avenue Westbound					Grand Avenue Northbound					Amar Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	100	292	42	0	434	15	152	62	0	229	38	195	130	0	363	63	132	38	0	233	1259
07:15 AM	83	290	37	0	410	25	165	40	0	230	65	289	158	0	512	61	202	47	0	310	1462
07:30 AM	116	267	47	0	430	22	84	56	0	162	58	339	188	0	585	85	192	38	0	315	1492
07:45 AM	111	251	42	0	404	29	92	41	0	162	52	398	165	0	615	72	189	24	0	285	1466
Total	410	1100	168	0	1678	91	493	199	0	783	213	1221	641	0	2075	281	715	147	0	1143	5679
08:00 AM	102	262	61	0	425	34	105	48	0	187	61	265	117	0	443	66	174	44	0	284	1339
08:15 AM	75	238	65	0	378	27	110	42	0	179	113	266	115	0	494	67	134	62	1	264	1315
08:30 AM	72	284	57	0	413	30	78	48	0	156	47	189	89	0	325	79	130	68	0	277	1171
08:45 AM	50	243	35	0	328	18	56	28	0	102	44	190	78	0	312	72	111	47	0	230	972
Total	299	1027	218	0	1544	109	349	166	0	624	265	910	399	0	1574	284	549	221	1	1055	4797
Grand Total	709	2127	386	0	3222	200	842	365	0	1407	478	2131	1040	0	3649	565	1264	368	1	2198	10476
Apprch %	22	66	12	0		14.2	59.8	25.9	0		13.1	58.4	28.5	0		25.7	57.5	16.7	0		
Total %	6.8	20.3	3.7	0	30.8	1.9	8	3.5	0	13.4	4.6	20.3	9.9	0	34.8	5.4	12.1	3.5	0	21	

	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	83	290	37	410	25	165	40	230	65	289	158	512	61	202	47	310	1462
07:30 AM	116	267	47	430	22	84	56	162	58	339	188	585	85	192	38	315	1492
07:45 AM	111	251	42	404	29	92	41	162	52	398	165	615	72	189	24	285	1466
08:00 AM	102	262	61	425	34	105	48	187	61	265	117	443	66	174	44	284	1339
Total Volume	412	1070	187	1669	110	446	185	741	236	1291	628	2155	284	757	153	1194	5759
% App. Total	24.7	64.1	11.2		14.8	60.2	25		11	59.9	29.1		23.8	63.4	12.8		
PHF	.888	.922	.766	.970	.809	.676	.826	.805	.908	.811	.835	.876	.835	.937	.814	.948	.965

City of Walnut
N/S: Grand Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTGRTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Grand Avenue
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Weather: Clear

File Name : WNTGRTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	100	292	42	434	15	152	62	229	65	289	158	512	61	202	47	310
+15 mins.	83	290	37	410	25	165	40	230	58	339	188	585	85	192	38	315
+30 mins.	116	267	47	430	22	84	56	162	52	398	165	615	72	189	24	285
+45 mins.	111	251	42	404	29	92	41	162	61	265	117	443	66	174	44	284
Total Volume	410	1100	168	1678	91	493	199	783	236	1291	628	2155	284	757	153	1194
% App. Total	24.4	65.6	10		11.6	63	25.4		11	59.9	29.1		23.8	63.4	12.8	
PHF	.884	.942	.894	.967	.784	.747	.802	.851	.908	.811	.835	.876	.835	.937	.814	.948

City of Walnut
N/S: Grand Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTGRTEPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

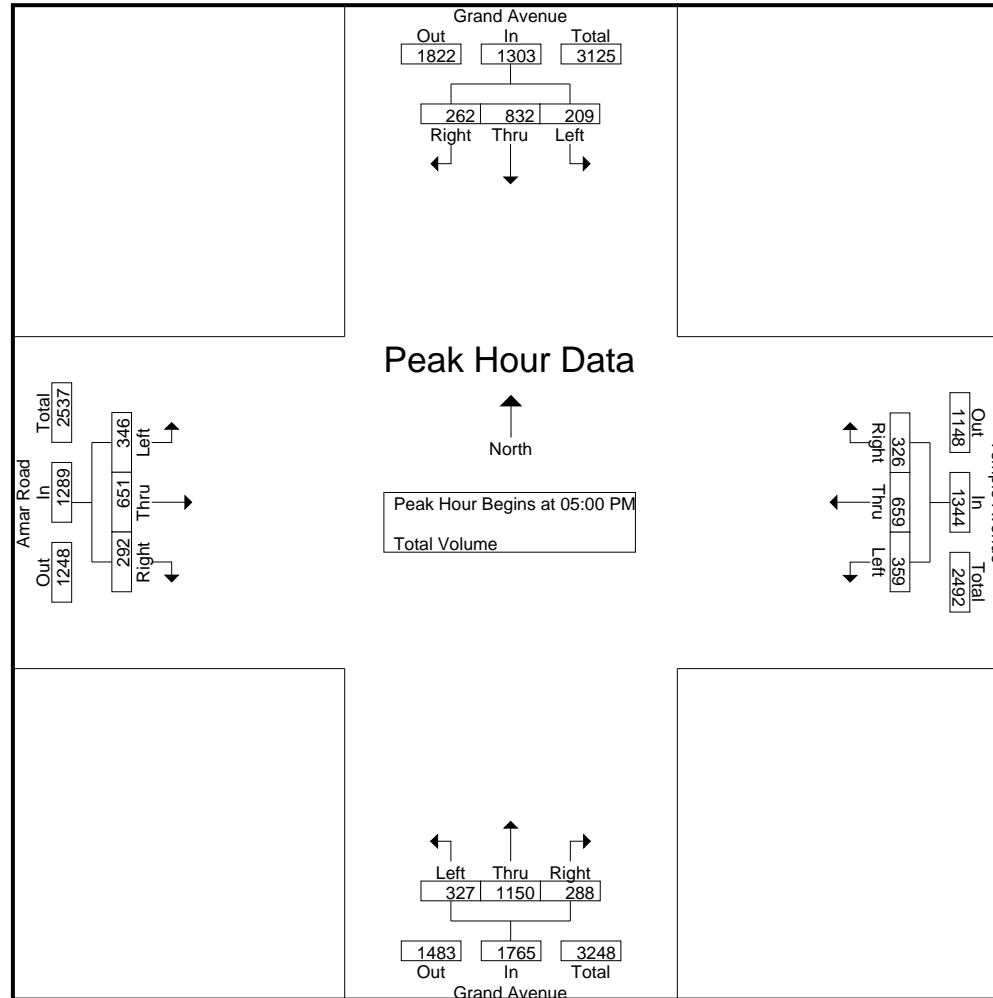
Groups Printed- Total Volume

	Grand Avenue Southbound					Temple Avenue Westbound					Grand Avenue Northbound					Amar Road Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	61	188	50	0	299	64	112	60	0	236	62	183	74	0	319	93	134	75	0	302	1156
04:15 PM	80	206	46	0	332	86	118	71	0	275	53	228	100	0	381	71	161	88	0	320	1308
04:30 PM	84	256	73	0	413	97	147	62	0	306	47	233	56	0	336	72	149	67	2	290	1345
04:45 PM	73	204	71	0	348	89	160	57	1	307	59	266	79	0	404	71	171	68	0	310	1369
Total	298	854	240	0	1392	336	537	250	1	1124	221	910	309	0	1440	307	615	298	2	1222	5178
05:00 PM	57	230	72	0	359	98	138	75	0	311	73	238	60	0	371	94	159	74	1	328	1369
05:15 PM	50	192	50	1	293	85	157	70	0	312	91	330	79	0	500	86	165	62	0	313	1418
05:30 PM	52	206	73	0	331	99	178	95	0	372	76	293	68	0	437	91	153	81	0	325	1465
05:45 PM	50	204	67	1	322	77	186	86	1	350	87	289	81	0	457	75	174	75	0	324	1453
Total	209	832	262	2	1305	359	659	326	1	1345	327	1150	288	0	1765	346	651	292	1	1290	5705
Grand Total	507	1686	502	2	2697	695	1196	576	2	2469	548	2060	597	0	3205	653	1266	590	3	2512	10883
Apprch %	18.8	62.5	18.6	0.1		28.1	48.4	23.3	0.1		17.1	64.3	18.6	0		26	50.4	23.5	0.1		
Total %	4.7	15.5	4.6	0	24.8	6.4	11	5.3	0	22.7	5	18.9	5.5	0	29.4	6	11.6	5.4	0	23.1	

	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	57	230	72	359	98	138	75	311	73	238	60	371	94	159	74	327	1368
05:15 PM	50	192	50	292	85	157	70	312	91	330	79	500	86	165	62	313	1417
05:30 PM	52	206	73	331	99	178	95	372	76	293	68	437	91	153	81	325	1465
05:45 PM	50	204	67	321	77	186	86	349	87	289	81	457	75	174	75	324	1451
Total Volume	209	832	262	1303	359	659	326	1344	327	1150	288	1765	346	651	292	1289	5701
% App. Total	16	63.9	20.1		26.7	49	24.3		18.5	65.2	16.3		26.8	50.5	22.7		
PHF	.917	.904	.897	.907	.907	.886	.858	.903	.898	.871	.889	.883	.920	.935	.901	.985	.973

City of Walnut
N/S: Grand Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTGRTEPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Grand Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTGRTEPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Grand Avenue Southbound				Temple Avenue Westbound				Grand Avenue Northbound				Amar Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	80	206	46	332	98	138	75	311	73	238	60	371	94	159	74	327
+15 mins.	84	256	73	413	85	157	70	312	91	330	79	500	86	165	62	313
+30 mins.	73	204	71	348	99	178	95	372	76	293	68	437	91	153	81	325
+45 mins.	57	230	72	359	77	186	86	349	87	289	81	457	75	174	75	324
Total Volume	294	896	262	1452	359	659	326	1344	327	1150	288	1765	346	651	292	1289
% App. Total	20.2	61.7	18		26.7	49	24.3		18.5	65.2	16.3		26.8	50.5	22.7	
PHF	.875	.875	.897	.879	.907	.886	.858	.903	.898	.871	.889	.883	.920	.935	.901	.985

City of Walnut
N/S: Bonita Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTBOTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

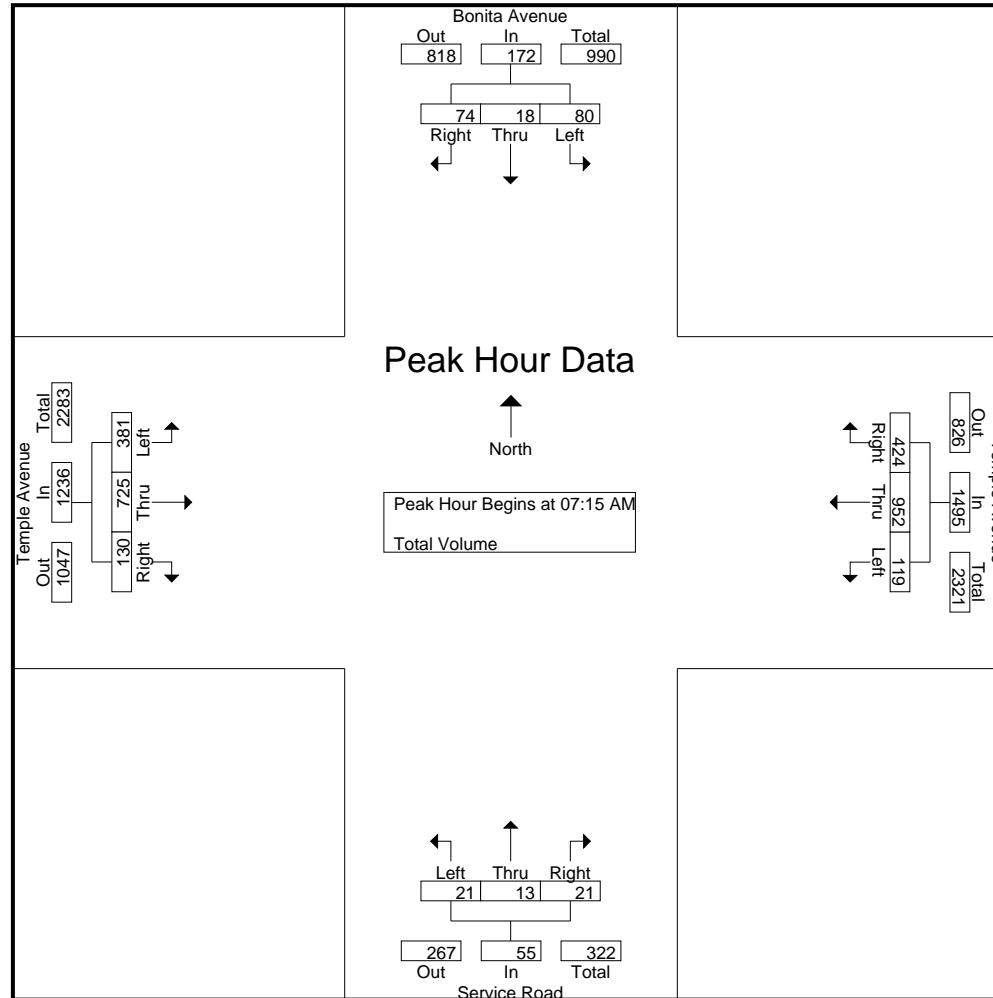
Groups Printed- Total Volume

	Bonita Avenue Southbound					Temple Avenue Westbound					Service Road Northbound					Temple Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	4	3	4	0	11	25	386	76	0	487	7	2	1	0	10	27	135	16	0	178	686
07:15 AM	9	3	13	0	25	24	291	82	0	397	3	5	17	0	25	60	207	30	0	297	744
07:30 AM	23	5	13	0	41	42	224	83	0	349	7	2	2	0	11	84	187	30	0	301	702
07:45 AM	33	8	28	0	69	22	208	124	0	354	4	3	0	0	7	104	158	31	0	293	723
Total	69	19	58	0	146	113	1109	365	0	1587	21	12	20	0	53	275	687	107	0	1069	2855
08:00 AM	15	2	20	0	37	31	229	135	0	395	7	3	2	0	12	133	173	39	0	345	789
08:15 AM	20	9	24	0	53	27	202	111	0	340	4	2	1	0	7	103	151	28	0	282	682
08:30 AM	13	7	21	0	41	15	160	58	0	233	4	5	6	0	15	68	146	16	0	230	519
08:45 AM	17	7	8	0	32	28	116	53	0	197	6	1	3	0	10	48	116	19	0	183	422
Total	65	25	73	0	163	101	707	357	0	1165	21	11	12	0	44	352	586	102	0	1040	2412
Grand Total	134	44	131	0	309	214	1816	722	0	2752	42	23	32	0	97	627	1273	209	0	2109	5267
Apprch %	43.4	14.2	42.4	0		7.8	66	26.2	0		43.3	23.7	33	0		29.7	60.4	9.9	0		
Total %	2.5	0.8	2.5	0	5.9	4.1	34.5	13.7	0	52.2	0.8	0.4	0.6	0	1.8	11.9	24.2	4	0	40	

	Bonita Avenue Southbound				Temple Avenue Westbound				Service Road Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	3	13	25	24	291	82	397	3	5	17	25	60	207	30	297	744
07:30 AM	23	5	13	41	42	224	83	349	7	2	2	11	84	187	30	301	702
07:45 AM	33	8	28	69	22	208	124	354	4	3	0	7	104	158	31	293	723
08:00 AM	15	2	20	37	31	229	135	395	7	3	2	12	133	173	39	345	789
Total Volume	80	18	74	172	119	952	424	1495	21	13	21	55	381	725	130	1236	2958
% App. Total	46.5	10.5	43		8	63.7	28.4		38.2	23.6	38.2		30.8	58.7	10.5		
PHF	.606	.563	.661	.623	.708	.818	.785	.941	.750	.650	.309	.550	.716	.876	.833	.896	.937

City of Walnut
N/S: Bonita Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTBOTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Bonita Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTBOTEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Bonita Avenue Southbound				Temple Avenue Westbound				Service Road Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	23	5	13	41	25	386	76	487	3	5	17	25	60	207	30	297
+15 mins.	33	8	28	69	24	291	82	397	7	2	2	11	84	187	30	301
+30 mins.	15	2	20	37	42	224	83	349	4	3	0	7	104	158	31	293
+45 mins.	20	9	24	53	22	208	124	354	7	3	2	12	133	173	39	345
Total Volume	91	24	85	200	113	1109	365	1587	21	13	21	55	381	725	130	1236
% App. Total	45.5	12	42.5		7.1	69.9	23		38.2	23.6	38.2		30.8	58.7	10.5	
PHF	.689	.667	.759	.725	.673	.718	.736	.815	.750	.650	.309	.550	.716	.876	.833	.896

City of Walnut
N/S: Bonita Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTBOTPEM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

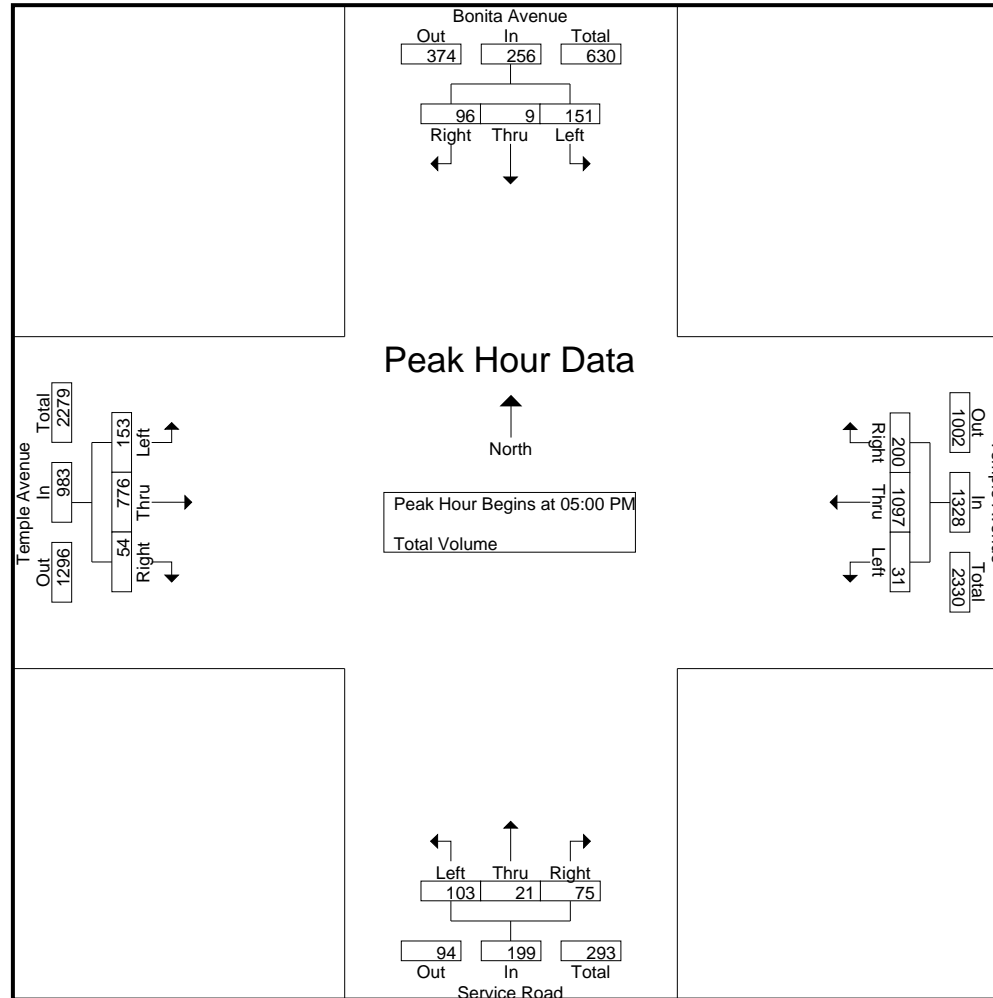
Groups Printed- Total Volume

	Bonita Avenue Southbound					Temple Avenue Westbound					Service Road Northbound					Temple Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	54	4	23	0	81	5	163	29	0	197	25	6	19	0	50	50	184	13	0	247	575
04:15 PM	82	7	56	0	145	8	147	53	0	208	18	5	29	0	52	48	210	14	0	272	677
04:30 PM	105	4	55	0	164	11	176	36	0	223	22	9	27	0	58	32	266	8	0	306	751
04:45 PM	51	2	24	0	77	3	148	36	0	187	27	6	15	0	48	44	264	11	0	319	631
Total	292	17	158	0	467	27	634	154	0	815	92	26	90	0	208	174	924	46	0	1144	2634
05:00 PM	49	4	24	0	77	5	228	40	0	273	35	6	21	0	62	34	213	16	0	263	675
05:15 PM	31	2	21	0	54	6	284	45	0	335	24	3	16	0	43	40	202	10	0	252	684
05:30 PM	38	2	18	0	58	5	285	55	0	345	31	9	26	0	66	40	176	8	0	224	693
05:45 PM	33	1	33	0	67	15	300	60	0	375	13	3	12	0	28	39	185	20	0	244	714
Total	151	9	96	0	256	31	1097	200	0	1328	103	21	75	0	199	153	776	54	0	983	2766
Grand Total	443	26	254	0	723	58	1731	354	0	2143	195	47	165	0	407	327	1700	100	0	2127	5400
Apprch %	61.3	3.6	35.1	0		2.7	80.8	16.5	0		47.9	11.5	40.5	0		15.4	79.9	4.7	0		
Total %	8.2	0.5	4.7	0	13.4	1.1	32.1	6.6	0	39.7	3.6	0.9	3.1	0	7.5	6.1	31.5	1.9	0	39.4	

	Bonita Avenue Southbound				Temple Avenue Westbound				Service Road Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	49	4	24	77	5	228	40	273	35	6	21	62	34	213	16	263	675
05:15 PM	31	2	21	54	6	284	45	335	24	3	16	43	40	202	10	252	684
05:30 PM	38	2	18	58	5	285	55	345	31	9	26	66	40	176	8	224	693
05:45 PM	33	1	33	67	15	300	60	375	13	3	12	28	39	185	20	244	714
Total Volume	151	9	96	256	31	1097	200	1328	103	21	75	199	153	776	54	983	2766
% App. Total	59	3.5	37.5		2.3	82.6	15.1		51.8	10.6	37.7		15.6	78.9	5.5		
PHF	.770	.563	.727	.831	.517	.914	.833	.885	.736	.583	.721	.754	.956	.911	.675	.934	.968

City of Walnut
N/S: Bonita Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTBOTPEM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Bonita Avenue
E/W: Temple Avenue
Weather: Clear

File Name : WNTBOTPEM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Bonita Avenue Southbound				Temple Avenue Westbound				Service Road Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:15 PM				04:15 PM			
+0 mins.	54	4	23	81	5	228	40	273	18	5	29	52	48	210	14	272
+15 mins.	82	7	56	145	6	284	45	335	22	9	27	58	32	266	8	306
+30 mins.	105	4	55	164	5	285	55	345	27	6	15	48	44	264	11	319
+45 mins.	51	2	24	77	15	300	60	375	35	6	21	62	34	213	16	263
Total Volume	292	17	158	467	31	1097	200	1328	102	26	92	220	158	953	49	1160
% App. Total	62.5	3.6	33.8		2.3	82.6	15.1		46.4	11.8	41.8		13.6	82.2	4.2	
PHF	.695	.607	.705	.712	.517	.914	.833	.885	.729	.722	.793	.887	.823	.896	.766	.909

City of Walnut
N/S: Valley Boulevard
E/W: Temple Avenue
Weather: Clear

File Name : WNTVATEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

Groups Printed- Total Volume

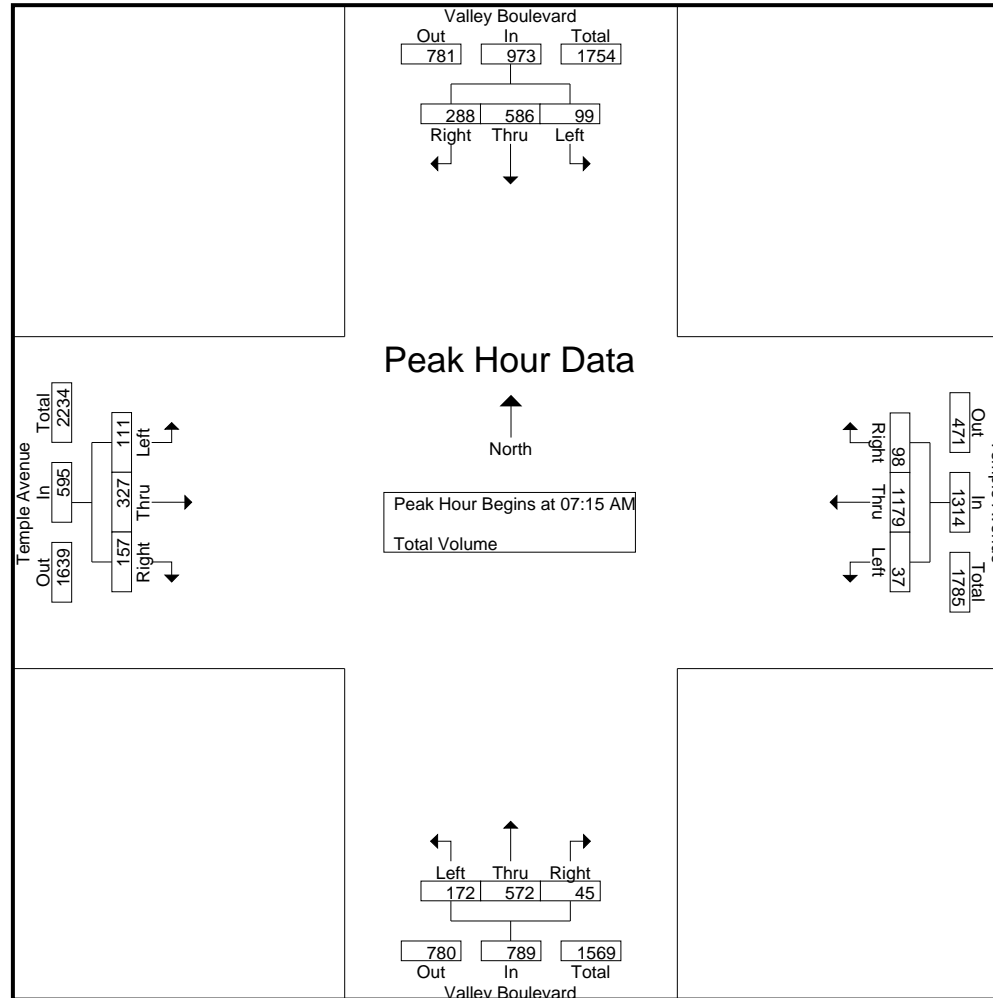
	Valley Boulevard Southbound					Temple Avenue Westbound					Valley Boulevard Northbound					Temple Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	15	148	98	1	262	10	394	22	0	426	64	86	10	0	160	13	36	37	1	87	935
07:15 AM	19	167	62	2	250	7	319	18	0	344	58	142	11	0	211	29	57	49	0	135	940
07:30 AM	22	125	80	2	229	8	241	21	0	270	37	186	20	0	243	28	89	41	0	158	900
07:45 AM	32	120	79	0	231	9	300	28	1	338	47	117	9	0	173	27	85	28	0	140	882
Total	88	560	319	5	972	34	1254	89	1	1378	206	531	50	0	787	97	267	155	1	520	3657
08:00 AM	26	174	67	0	267	13	319	31	0	363	30	127	5	0	162	27	96	39	0	162	954
08:15 AM	10	158	64	0	232	29	272	38	0	339	56	75	11	0	142	32	73	29	0	134	847
08:30 AM	8	120	59	0	187	15	183	28	2	228	68	92	8	0	168	20	70	20	1	111	694
08:45 AM	17	87	64	0	168	14	342	36	1	393	53	87	6	0	146	23	83	17	1	124	831
Total	61	539	254	0	854	71	1116	133	3	1323	207	381	30	0	618	102	322	105	2	531	3326
Grand Total	149	1099	573	5	1826	105	2370	222	4	2701	413	912	80	0	1405	199	589	260	3	1051	6983
Apprch %	8.2	60.2	31.4	0.3		3.9	87.7	8.2	0.1		29.4	64.9	5.7	0		18.9	56	24.7	0.3		
Total %	2.1	15.7	8.2	0.1	26.1	1.5	33.9	3.2	0.1	38.7	5.9	13.1	1.1	0	20.1	2.8	8.4	3.7	0	15.1	

	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	19	167	62	248	7	319	18	344	58	142	11	211	29	57	49	135	938
07:30 AM	22	125	80	227	8	241	21	270	37	186	20	243	28	89	41	158	898
07:45 AM	32	120	79	231	9	300	28	337	47	117	9	173	27	85	28	140	881
08:00 AM	26	174	67	267	13	319	31	363	30	127	5	162	27	96	39	162	954
Total Volume	99	586	288	973	37	1179	98	1314	172	572	45	789	111	327	157	595	3671
% App. Total	10.2	60.2	29.6		2.8	89.7	7.5		21.8	72.5	5.7		18.7	55	26.4		
PHF	.773	.842	.900	.911	.712	.924	.790	.905	.741	.769	.563	.812	.957	.852	.801	.918	.962

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City of Walnut
N/S: Valley Boulevard
E/W: Temple Avenue
Weather: Clear

File Name : WNTVATEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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City of Walnut
N/S: Valley Boulevard
E/W: Temple Avenue
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File Name : WNTVATEAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	19	167	62	248	10	394	22	426	58	142	11	211	29	57	49	135
+15 mins.	22	125	80	227	7	319	18	344	37	186	20	243	28	89	41	158
+30 mins.	32	120	79	231	8	241	21	270	47	117	9	173	27	85	28	140
+45 mins.	26	174	67	267	9	300	28	337	30	127	5	162	27	96	39	162
Total Volume	99	586	288	973	34	1254	89	1377	172	572	45	789	111	327	157	595
% App. Total	10.2	60.2	29.6		2.5	91.1	6.5		21.8	72.5	5.7		18.7	55	26.4	
PHF	.773	.842	.900	.911	.850	.796	.795	.808	.741	.769	.563	.812	.957	.852	.801	.918

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City of Walnut
N/S: Valley Boulevard
E/W: Temple Avenue
Weather: Clear

File Name : WNTVATEPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

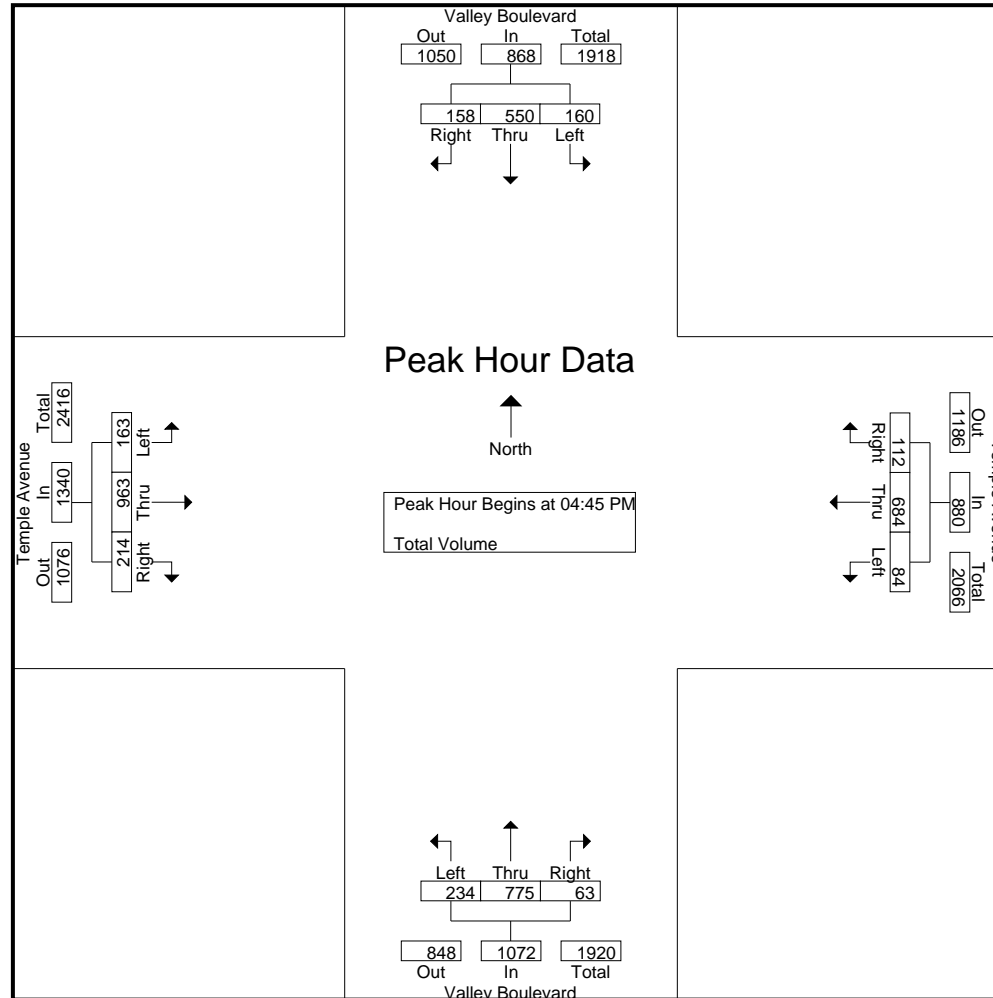
Groups Printed- Total Volume

	Valley Boulevard Southbound					Temple Avenue Westbound					Valley Boulevard Northbound					Temple Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	49	90	29	0	168	18	163	17	0	198	35	144	8	0	187	51	194	42	0	287	840
04:15 PM	51	71	46	0	168	20	166	31	2	219	33	162	18	0	213	45	237	41	0	323	923
04:30 PM	54	96	31	4	185	19	146	27	0	192	53	203	11	0	267	51	286	39	5	381	1025
04:45 PM	54	97	28	0	179	21	182	33	0	236	40	155	15	0	210	66	328	59	1	454	1079
Total	208	354	134	4	700	78	657	108	2	845	161	664	52	0	877	213	1045	181	6	1445	3867
05:00 PM	36	113	32	0	181	16	139	26	0	181	57	234	17	1	309	37	184	46	0	267	938
05:15 PM	36	193	49	1	279	15	186	30	0	231	65	206	13	0	284	25	206	46	3	280	1074
05:30 PM	34	147	49	0	230	32	177	23	2	234	72	180	18	0	270	35	245	63	0	343	1077
05:45 PM	48	74	37	1	160	10	209	32	0	251	40	157	15	0	212	26	305	80	3	414	1037
Total	154	527	167	2	850	73	711	111	2	897	234	777	63	1	1075	123	940	235	6	1304	4126
Grand Total	362	881	301	6	1550	151	1368	219	4	1742	395	1441	115	1	1952	336	1985	416	12	2749	7993
Apprch %	23.4	56.8	19.4	0.4		8.7	78.5	12.6	0.2		20.2	73.8	5.9	0.1		12.2	72.2	15.1	0.4		
Total %	4.5	11	3.8	0.1	19.4	1.9	17.1	2.7	0.1	21.8	4.9	18	1.4	0	24.4	4.2	24.8	5.2	0.2	34.4	

	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	54	97	28	179	21	182	33	236	40	155	15	210	66	328	59	453	1078
05:00 PM	36	113	32	181	16	139	26	181	57	234	17	308	37	184	46	267	937
05:15 PM	36	193	49	278	15	186	30	231	65	206	13	284	25	206	46	277	1070
05:30 PM	34	147	49	230	32	177	23	232	72	180	18	270	35	245	63	343	1075
Total Volume	160	550	158	868	84	684	112	880	234	775	63	1072	163	963	214	1340	4160
% App. Total	18.4	63.4	18.2		9.5	77.7	12.7		21.8	72.3	5.9		12.2	71.9	16		
PHF	.741	.712	.806	.781	.656	.919	.848	.932	.813	.828	.875	.870	.617	.734	.849	.740	.965

City of Walnut
N/S: Valley Boulevard
E/W: Temple Avenue
Weather: Clear

File Name : WNTVATEPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Walnut
N/S: Valley Boulevard
E/W: Temple Avenue
Weather: Clear

File Name : WNTVATEPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Valley Boulevard Southbound				Temple Avenue Westbound				Valley Boulevard Northbound				Temple Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	54	97	28	179	16	139	26	181	57	234	17	308	51	194	42	287
+15 mins.	36	113	32	181	15	186	30	231	65	206	13	284	45	237	41	323
+30 mins.	36	193	49	278	32	177	23	232	72	180	18	270	51	286	39	376
+45 mins.	34	147	49	230	10	209	32	251	40	157	15	212	66	328	59	453
Total Volume	160	550	158	868	73	711	111	895	234	777	63	1074	213	1045	181	1439
% App. Total	18.4	63.4	18.2		8.2	79.4	12.4		21.8	72.3	5.9		14.8	72.6	12.6	
PHF	.741	.712	.806	.781	.570	.850	.867	.891	.813	.830	.875	.872	.807	.796	.767	.794

Counts Unlimited
PO Box 1178
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City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

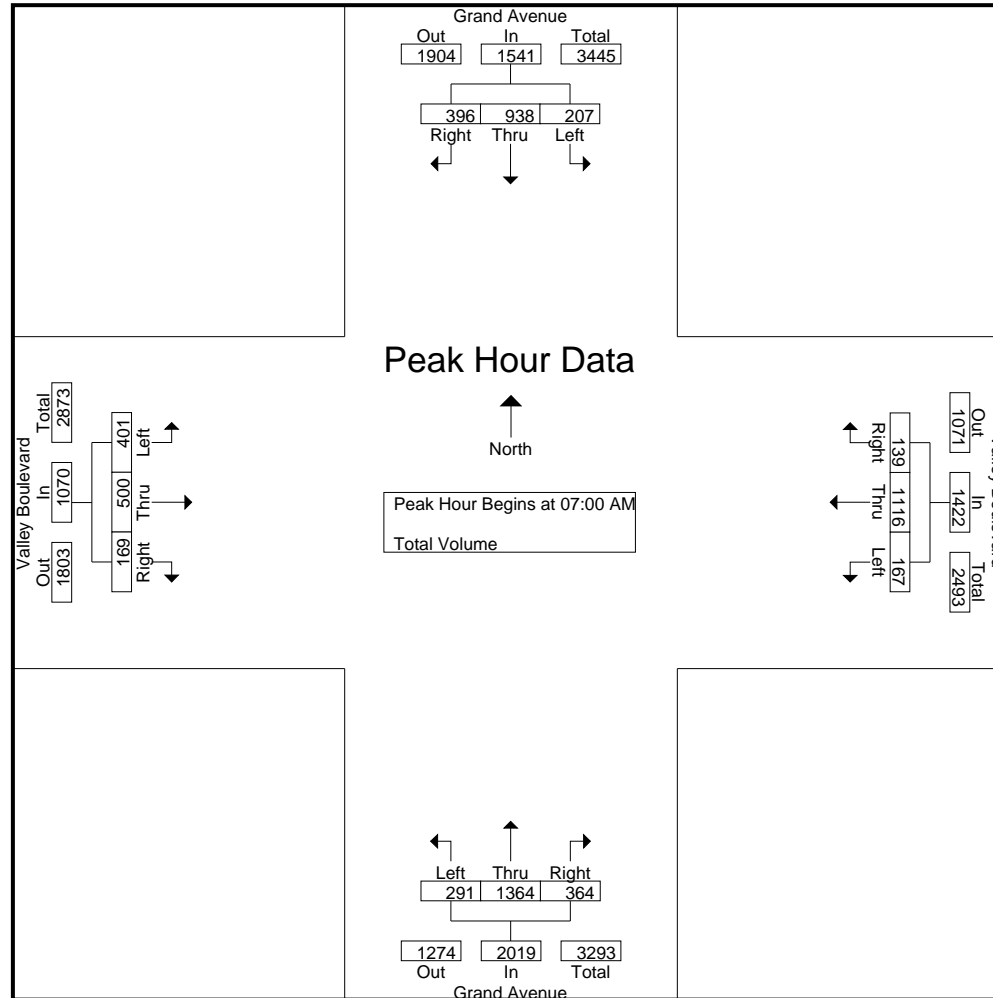
Groups Printed- Total Volume

	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	31	215	94	0	340	39	320	44	1	404	76	340	83	0	499	74	112	33	0	219	1462
07:15 AM	50	225	107	1	383	53	311	40	4	408	91	348	117	0	556	88	120	46	0	254	1601
07:30 AM	66	238	108	0	412	37	266	28	3	334	67	364	85	0	516	112	148	54	2	316	1578
07:45 AM	60	260	87	0	407	38	219	27	6	290	57	312	79	0	448	127	120	36	0	283	1428
Total	207	938	396	1	1542	167	1116	139	14	1436	291	1364	364	0	2019	401	500	169	2	1072	6069
08:00 AM	51	250	90	0	391	39	257	31	1	328	72	322	68	0	462	107	128	29	0	264	1445
08:15 AM	29	258	95	0	382	60	220	25	5	310	41	302	80	0	423	78	118	41	0	237	1352
08:30 AM	53	250	84	3	390	37	253	37	4	331	52	225	67	0	344	61	111	40	1	213	1278
08:45 AM	42	242	86	1	371	41	190	23	1	255	56	216	75	1	348	72	107	51	2	232	1206
Total	175	1000	355	4	1534	177	920	116	11	1224	221	1065	290	1	1577	318	464	161	3	946	5281
Grand Total	382	1938	751	5	3076	344	2036	255	25	2660	512	2429	654	1	3596	719	964	330	5	2018	11350
Apprch %	12.4	63	24.4	0.2		12.9	76.5	9.6	0.9		14.2	67.5	18.2	0		35.6	47.8	16.4	0.2		
Total %	3.4	17.1	6.6	0	27.1	3	17.9	2.2	0.2	23.4	4.5	21.4	5.8	0	31.7	6.3	8.5	2.9	0	17.8	

	Grand Avenue Southbound				Valley Boulevard Westbound				Grand Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 07:00 AM																	
07:00 AM	31	215	94	340	39	320	44	403	76	340	83	499	74	112	33	219	1461
07:15 AM	50	225	107	382	53	311	40	404	91	348	117	556	88	120	46	254	1596
07:30 AM	66	238	108	412	37	266	28	331	67	364	85	516	112	148	54	314	1573
07:45 AM	60	260	87	407	38	219	27	284	57	312	79	448	127	120	36	283	1422
Total Volume	207	938	396	1541	167	1116	139	1422	291	1364	364	2019	401	500	169	1070	6052
% App. Total	13.4	60.9	25.7		11.7	78.5	9.8		14.4	67.6	18		37.5	46.7	15.8		
PHF	.784	.902	.917	.935	.788	.872	.790	.880	.799	.937	.778	.908	.789	.845	.782	.852	.948

City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAAM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Grand Avenue Southbound				Valley Boulevard Westbound				Grand Avenue Northbound				Valley Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	50	225	107	382	39	320	44	403	76	340	83	499	88	120	46	254
+15 mins.	66	238	108	412	53	311	40	404	91	348	117	556	112	148	54	314
+30 mins.	60	260	87	407	37	266	28	331	67	364	85	516	127	120	36	283
+45 mins.	51	250	90	391	38	219	27	284	57	312	79	448	107	128	29	264
Total Volume	227	973	392	1592	167	1116	139	1422	291	1364	364	2019	434	516	165	1115
% App. Total	14.3	61.1	24.6		11.7	78.5	9.8		14.4	67.6	18		38.9	46.3	14.8	
PHF	.860	.936	.907	.966	.788	.872	.790	.880	.799	.937	.778	.908	.854	.872	.764	.888

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City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
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File Name : WNTGRVAPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 1

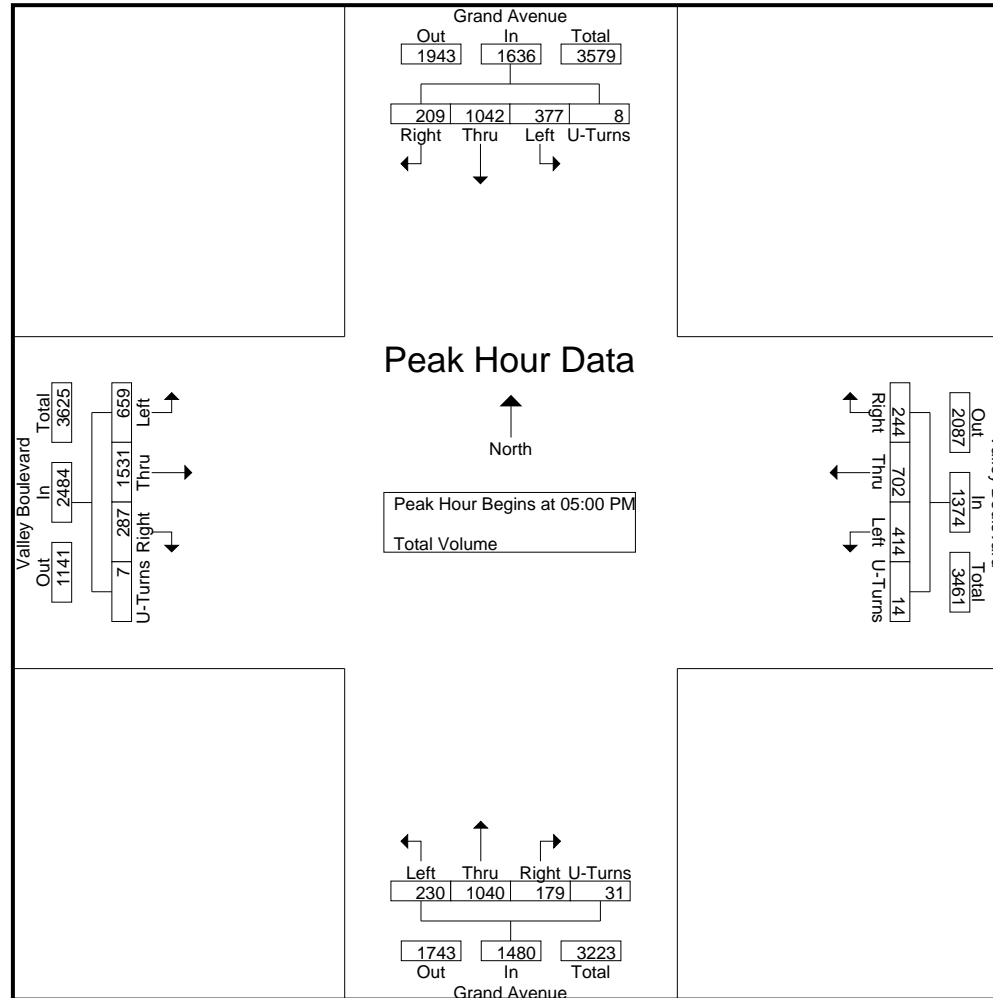
Groups Printed- Total Volume

	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	61	221	44	1	327	63	160	41	1	265	62	188	32	6	288	105	310	64	5	484	1364
04:15 PM	74	332	47	0	453	80	117	34	3	234	51	169	28	7	255	129	256	49	3	437	1379
04:30 PM	74	274	51	0	399	71	151	30	3	255	38	197	41	2	278	144	355	77	2	578	1510
04:45 PM	109	296	52	4	461	86	134	22	2	244	47	198	30	6	281	134	313	92	0	539	1525
Total	318	1123	194	5	1640	300	562	127	9	998	198	752	131	21	1102	512	1234	282	10	2038	5778
05:00 PM	81	250	52	1	384	101	176	50	2	329	61	253	37	6	357	158	396	90	1	645	1715
05:15 PM	109	280	48	2	439	110	180	64	4	358	63	268	48	8	387	167	357	63	4	591	1775
05:30 PM	84	263	45	2	394	101	212	72	5	390	54	273	54	10	391	180	397	76	0	653	1828
05:45 PM	103	249	64	3	419	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	1656
Total	377	1042	209	8	1636	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	6974
Grand Total	695	2165	403	13	3276	714	1264	371	23	2372	428	1792	310	52	2582	1171	2765	569	17	4522	12752
Apprch %	21.2	66.1	12.3	0.4		30.1	53.3	15.6	1		16.6	69.4	12	2		25.9	61.1	12.6	0.4		
Total %	5.5	17	3.2	0.1	25.7	5.6	9.9	2.9	0.2	18.6	3.4	14.1	2.4	0.4	20.2	9.2	21.7	4.5	0.1	35.5	

	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	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	81	250	52	1	384	101	176	50	2	329	61	253	37	6	357	158	396	90			
05:15 PM	109	280	48	2	439	110	180	64	4	358	63	268	48	8	387	167	357	63	4	591	1775
05:30 PM	84	263	45	2	394	101	212	72	5	390	54	273	54	10	391	180	397			653	1828
05:45 PM	103	249	64	3	419	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	1656
Total Volume	377	1042	209	8	1636	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	6974
% App. Total	23	63.7	12.8	0.5		30.1	51.1	17.8	1		15.5	70.3	12.1	2.1		26.5	61.6	11.6	0.3		
PHF	.865	.930	.816	.667	.932	.941	.828	.847	.700	.881	.913	.952	.829	.775	.946	.915	.964	.797	.438	.951	.954

City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 2



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PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Walnut
N/S: Grand Avenue
E/W: Valley Boulevard
Weather: Clear

File Name : WNTGRVAPM
Site Code : 04215551
Start Date : 10/1/2015
Page No : 3

	Grand Avenue Southbound					Valley Boulevard Westbound					Grand Avenue Northbound					Valley Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					05:00 PM					05:00 PM					05:00 PM					
+0 mins.	74	332																			
+15 mins.	74	274	51	0	399	110	180	64	4	358	63	268	48	8	387	167	357	63	4	591	
+30 mins.	109	296	52	4	461	101	212	72	5	390	54	273	54	10	391	180	397			653	
+45 mins.	81	250	52	1	384	102	134	58	3	297	52	246	40	7	345	154	381	58	2	595	
Total Volume	338	1152	202	5	1697	414	702	244	14	1374	230	1040	179	31	1480	659	1531	287	7	2484	
% App. Total	19.9	67.9	11.9	0.3		30.1	51.1	17.8	1		15.5	70.3	12.1	2.1		26.5	61.6	11.6	0.3		
PHF	.775	.867	.971	.313	.920	.941	.828	.847	.700	.881	.913	.952	.829	.775	.946	.915	.964	.797	.438	.951	

Counts Unlimited, Inc

Page 1

City of Walnut
Grand Avenue
S/ Temple Avenue
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

WNTGRSTE
Site Code: 042-15551

Start Time	08-Oct-15 Thu	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		33	213			24	280				
12:15		32	206			26	256				
12:30		29	278			19	268				
12:45		22	324	116	1021	15	337	84	1141	200	2162
01:00		32	292			13	402				
01:15		14	263			16	367				
01:30		15	307			7	331				
01:45		15	244	76	1106	3	275	39	1375	115	2481
02:00		9	338			9	316				
02:15		13	290			7	329				
02:30		18	345			15	337				
02:45		6	346	46	1319	16	409	47	1391	93	2710
03:00		7	360			9	386				
03:15		7	306			14	393				
03:30		14	315			21	327				
03:45		5	317	33	1298	38	272	82	1378	115	2676
04:00		14	345			26	336				
04:15		16	339			42	337				
04:30		16	338			76	378				
04:45		32	350	78	1372	86	350	230	1401	308	2773
05:00		36	433			59	343				
05:15		52	338			114	334				
05:30		72	261			159	401				
05:45		77	419	237	1451	195	315	527	1393	764	2844
06:00		114	427			164	343				
06:15		133	475			173	368				
06:30		204	407			255	373				
06:45		297	344	748	1653	304	397	896	1481	1644	3134
07:00		395	255			317	297				
07:15		520	253			358	226				
07:30		578	232			327	210				
07:45		527	221	2020	961	320	198	1322	931	3342	1892
08:00		439	180			297	233				
08:15		352	190			327	233				
08:30		296	174			325	237				
08:45		277	162	1364	706	316	237	1265	940	2629	1646
09:00		320	154			203	229				
09:15		410	138			249	174				
09:30		333	153			372	208				
09:45		234	116	1297	561	291	259	1115	870	2412	1431
10:00		193	98			239	160				
10:15		215	89			170	105				
10:30		230	106			237	70				
10:45		264	88	902	381	199	59	845	394	1747	775
11:00		293	77			282	56				
11:15		323	59			425	41				
11:30		254	64			382	32				
11:45		249	55	1119	255	310	35	1399	164	2518	419
Total		8036	12084	8036	12084	7851	12859	7851	12859	15887	24943
Combined Total		20120		20120		20710		20710		40830	
AM Peak	-	07:15	-	-	-	11:00	-	-	-	-	-
Vol.	-	2064	-	-	-	1399	-	-	-	-	-
P.H.F.		0.893				0.823					
PM Peak	-	-	05:45	-	-	-	02:30	-	-	-	-
Vol.	-	-	1728	-	-	-	1525	-	-	-	-
P.H.F.			0.909				0.932				
Percentage		39.9%	60.1%			37.9%	62.1%				

Counts Unlimited, Inc

City of Walnut
Grand Avenue
S/ Temple Avenue
24 Hour Directional Volume Count

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

WNTGRSTE
Site Code: 042-15551

Start Time	09-Oct-15 Fri	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		44	237			22	299				
12:15		40	219			23	277				
12:30		43	223			21	259				
12:45		31	239	158	918	17	270	83	1105	241	2023
01:00		22	270			21	310				
01:15		32	224			20	311				
01:30		25	216			9	332				
01:45		17	220	96	930	16	270	66	1223	162	2153
02:00		19	307			8	298				
02:15		11	261			15	275				
02:30		16	261			20	298				
02:45		6	294	52	1123	14	282	57	1153	109	2276
03:00		12	335			12	309				
03:15		16	273			19	260				
03:30		6	299			28	272				
03:45		9	308	43	1215	33	270	92	1111	135	2326
04:00		14	260			25	289				
04:15		23	304			47	295				
04:30		12	329			61	328				
04:45		36	310	85	1203	87	281	220	1193	305	2396
05:00		37	375			58	274				
05:15		43	402			117	326				
05:30		51	362			153	317				
05:45		64	389	195	1528	173	292	501	1209	696	2737
06:00		88	388			161	330				
06:15		103	335			190	285				
06:30		140	308			267	256				
06:45		209	273	540	1304	285	255	903	1126	1443	2430
07:00		267	241			328	230				
07:15		349	250			367	207				
07:30		394	204			275	215				
07:45		460	201	1470	896	276	208	1246	860	2716	1756
08:00		431	160			310	150				
08:15		322	177			346	163				
08:30		300	178			350	166				
08:45		273	148	1326	663	302	158	1308	637	2634	1300
09:00		231	172			215	144				
09:15		236	148			218	150				
09:30		217	166			229	175				
09:45		215	143	899	629	220	120	882	589	1781	1218
10:00		195	142			225	121				
10:15		179	127			208	118				
10:30		212	114			238	80				
10:45		206	91	792	474	221	79	892	398	1684	872
11:00		207	93			282	82				
11:15		233	73			375	48				
11:30		235	92			381	66				
11:45		218	47	893	305	261	46	1299	242	2192	547
Total		6549	11188	6549	11188	7549	10846	7549	10846	14098	22034
Combined Total		17737		17737		18395		18395		36132	
AM Peak	-	07:15	-	-	-	08:00	-	-	-	-	-
Vol.	-	1634	-	-	-	1308	-	-	-	-	-
P.H.F.		0.888				0.934					
PM Peak	-	-	05:15	-	-	-	05:15	-	-	-	-
Vol.	-	-	1541	-	-	-	1265	-	-	-	-
P.H.F.			0.958				0.953				
Percentage		36.9%	63.1%			41.0%	59.0%				
ADT/AADT		ADT 38,481	AADT 38,481								

APPENDIX B – LOS CALCULATION SHEETS

WPS Truck Haul Congestion
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Grand/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.665

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 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:	Ovl				Include				Ovl				Ovl							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	2	0	3	0	1	2	0	2	1	0	2	0	2	0	1	2	0	2	0	1

Volume Module:

Base Vol:	265	910	399	299	1027	218	285	549	221	109	349	166
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	265	910	399	299	1027	218	285	549	221	109	349	166
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	265	910	399	299	1027	218	285	549	221	109	349	166
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	273	938	411	308	1059	225	294	566	228	112	360	171
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	938	411	308	1059	225	294	566	228	112	360	171
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	273	938	411	308	1059	225	294	566	228	112	360	171
OvlAdjVol:			355						91			17

-----|-----|-----|-----|-----|

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	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.47	0.53	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3200	4800	1600	3200	3960	840	3200	3200	1600	3200	3200	1600

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Capacity Analysis Module:

Vol/Sat:	0.09	0.20	0.26	0.10	0.27	0.27	0.09	0.18	0.14	0.04	0.11	0.11
OvlAdjV/S:			0.22						0.06			0.01
Crit Moves:	****			****			****			****		

WPS Truck Haul Congestion
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Bonita/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.570

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 38 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				Ovl				Include				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	1	0	1	0	1	2	0	1	0	1	2	0	1	1	0	1	0	1	1	0

Volume Module:

Base Vol:	21	11	12	65	25	73	352	586	102	101	707	357
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	11	12	65	25	73	352	586	102	101	707	357
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	11	12	65	25	73	352	586	102	101	707	357
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	21	11	12	65	25	73	352	586	102	101	707	357
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	11	12	65	25	73	352	586	102	101	707	357
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	11	12	65	25	73	352	586	102	101	707	357
OvlAdjVol:	0											

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	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.70	0.30	1.00	1.33	0.67
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	2726	474	1600	2126	1074

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.02	0.02	0.05	0.11	0.21	0.22	0.06	0.33	0.33
OvlAdjV/S:	0.00											
Crit Moves:	****	****				****	****					

WPS Truck Haul Congestion
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Valley/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.723

Loss Time (sec): 10 (Y+R=4.0 sec) 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				Include				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	1	0	1	0	2	1	0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	207	381	30		61	539	254		104	322	105		74	1116	133	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	207	381	30		61	539	254		104	322	105		74	1116	133	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	207	381	30		61	539	254		104	322	105		74	1116	133	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	207	381	30		61	539	254		104	322	105		74	1116	133	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	207	381	30		61	539	254		104	322	105		74	1116	133	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	207	381	30		61	539	254		104	322	105		74	1116	133	

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.26	0.74		1.00	2.68	0.32	
Final Sat.:	1600	3200	1600		1600	3200	1600		1600	3620	1180		1600	4289	511	

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.13	0.12	0.02		0.04	0.17	0.16		0.07	0.09	0.09		0.05	0.26	0.26	
Crit Moves:	****				****				****				****			

WPS Truck Haul Congestion
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand/Valley

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 46 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:	Ignore				Ignore				Ignore				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	222	1065	290		179	1000	355		321	464	161		188	920	116	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	222	1065	290		179	1000	355		321	464	161		188	920	116	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	222	1065	290		179	1000	355		321	464	161		188	920	116	
User Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	222	1065	0		179	1000	0		321	464	0		188	920	116	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	222	1065	0		179	1000	0		321	464	0		188	920	116	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	222	1065	0		179	1000	0		321	464	0		188	920	116	

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00	
Final Sat.:	3200	4800	1600		3200	4800	1600		3200	4800	1600		3200	4800	1600	

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.07	0.22	0.00		0.06	0.21	0.00		0.10	0.10	0.00		0.06	0.19	0.07	
Crit Moves:	****				****				****				****			

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Grand/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 50 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:	Ovl				Include				Ovl				Ovl							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	2	0	3	0	1	2	0	2	1	0	2	0	2	0	1	2	0	2	0	1

Volume Module:

Base Vol:	221	910	309	298	854	240	309	615	298	337	537	250
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	910	309	298	854	240	309	615	298	337	537	250
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	910	309	298	854	240	309	615	298	337	537	250
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	228	938	319	307	880	247	319	634	307	347	554	258
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	938	319	307	880	247	319	634	307	347	554	258
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	228	938	319	307	880	247	319	634	307	347	554	258
OvlAdjVol:	145						193			104		

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	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	2.34	0.66	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3200	4800	1600	3200	3747	1053	3200	3200	1600	3200	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.07	0.20	0.20	0.10	0.23	0.23	0.10	0.20	0.19	0.11	0.17	0.16
OvlAdjV/S:	0.09						0.12			0.07		
Crit Moves:	****			****			****			****		

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Bonita/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.568

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 38 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				Ovl				Include				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	1	0	1	0	1	2	0	1	0	1	2	0	1	1	0	1	0	1	1	0

Volume Module:

Base Vol:	92	26	90	292	17	158	174	924	46	27	634	154
Growth Adj:	1.00	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	26	90	292	17	158	174	924	46	27	634	154
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	26	90	292	17	158	174	924	46	27	634	154
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	26	90	292	17	158	174	924	46	27	634	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	26	90	292	17	158	174	924	46	27	634	154
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	26	90	292	17	158	174	924	46	27	634	154
OvlAdjVol:	71											

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	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.91	0.09	1.00	1.61	0.39
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	3048	152	1600	2575	625

Capacity Analysis Module:

Vol/Sat:	0.06	0.02	0.06	0.09	0.01	0.10	0.05	0.30	0.30	0.02	0.25	0.25
OvlAdjV/S:	0.04											

Crit Moves: **** *

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Valley/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.745

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 56 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
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	161	664	52	212	354	134	219	1045	181	80	657	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	161	664	52	212	354	134	219	1045	181	80	657	108
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	161	664	52	212	354	134	219	1045	181	80	657	108
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	161	664	52	212	354	134	219	1045	181	80	657	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	664	52	212	354	134	219	1045	181	80	657	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	161	664	52	212	354	134	219	1045	181	80	657	108

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	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.56	0.44	1.00	2.58	0.42
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4091	709	1600	4122	678

Capacity Analysis Module:

Vol/Sat:	0.10	0.21	0.03	0.13	0.11	0.08	0.14	0.26	0.26	0.05	0.16	0.16
Crit Moves:	****			****			****			****		

WPS Truck Haul Congestion
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand/Valley

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 58 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:	Ignore				Ignore				Ignore				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	219	752	131		323	1123	194		522	1234	282		309	562	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:	219	752	131		323	1123	194		522	1234	282		309	562	127	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	219	752	131		323	1123	194		522	1234	282		309	562	127	
User Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	219	752	0		323	1123	0		522	1234	0		309	562	127	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	219	752	0		323	1123	0		522	1234	0		309	562	127	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	219	752	0		323	1123	0		522	1234	0		309	562	127	

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00	
Final Sat.:	3200	4800	1600		3200	4800	1600		3200	4800	1600		3200	4800	1600	

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.07	0.16	0.00		0.10	0.23	0.00		0.16	0.26	0.00		0.10	0.12	0.08	
Crit Moves:	****				****				****				****			

WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Grand/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 48 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:	Ovl				Include				Ovl				Ovl							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	2	0	3	0	1	2	0	2	1	0	2	0	2	0	1	2	0	2	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	265	910	399		299	1027	218		285	549	221		109	349	166	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	265	910	399		299	1027	218		285	549	221		109	349	166	
Added Vol:	0	0	0		0	0	0		0	0	0		50	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	265	910	399		299	1027	218		285	549	221		159	349	166	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.97	0.97	0.97		0.97	0.97	0.97		0.97	0.97	0.97		0.97	0.97	0.97	
PHF Volume:	273	938	411		308	1059	225		294	566	228		164	360	171	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	273	938	411		308	1059	225		294	566	228		164	360	171	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	273	938	411		308	1059	225		294	566	228		164	360	171	
OvlAdjVol:			329								91				17	

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	3.00	1.00		2.00	2.47	0.53		2.00	2.00	1.00		2.00	2.00	1.00	
Final Sat.:	3200	4800	1600		3200	3960	840		3200	3200	1600		3200	3200	1600	

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.09	0.20	0.26		0.10	0.27	0.27		0.09	0.18	0.14		0.05	0.11	0.11	
OvlAdjV/S:			0.21								0.06				0.01	
Crit Moves:	****				****				****				****			

WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Bonita/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 40 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				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	1	0	1	0	1	2	0	1	0	1	2	0	1	1	0	1	0	1	1	0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	21	11	12		65	25	73		352	586	102		101	707	357	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	21	11	12		65	25	73		352	586	102		101	707	357	
Added Vol:	50	0	0		0	0	0		0	0	0		50	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	71	11	12		65	25	73		352	586	102		151	707	357	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	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	11	12		65	25	73		352	586	102		151	707	357	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	71	11	12		65	25	73		352	586	102		151	707	357	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	71	11	12		65	25	73		352	586	102		151	707	357	
OvlAdjVol:					0											

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	1.00	1.00		2.00	1.00	1.00		2.00	1.70	0.30		1.00	1.33	0.67	
Final Sat.:	1600	1600	1600		3200	1600	1600		3200	2726	474		1600	2126	1074	

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.04	0.01	0.01		0.02	0.02	0.05		0.11	0.21	0.22		0.09	0.33	0.33	
OvlAdjV/S:					0.00											
Crit Moves:	****				****				****				****			

WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Valley/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 58 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
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	207	381	30	61	539	254	104	322	105	74	1116	133
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	207	381	30	61	539	254	104	322	105	74	1116	133
Added Vol:	50	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	257	381	30	61	539	254	104	322	105	74	1116	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	257	381	30	61	539	254	104	322	105	74	1116	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	381	30	61	539	254	104	322	105	74	1116	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	257	381	30	61	539	254	104	322	105	74	1116	133

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	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.26	0.74	1.00	2.68	0.32
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3620	1180	1600	4289	511

Capacity Analysis Module:

Vol/Sat:	0.16	0.12	0.02	0.04	0.17	0.16	0.07	0.09	0.09	0.05	0.26	0.26
Crit Moves:	****			****			****			****		

WPS Truck Haul Congestion
Existing With Truck Haul
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand/Valley

Cycle (sec): 100 Critical Vol./Cap.(X): 0.685
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 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:	Ignore				Ignore				Ignore				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	222	1065	290		179	1000	355		321	464	161		188	920	116	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	222	1065	290		179	1000	355		321	464	161		188	920	116	
Added Vol:	0	0	0		50	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	222	1065	290		229	1000	355		321	464	161		188	920	116	
User Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	222	1065	0		229	1000	0		321	464	0		188	920	116	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	222	1065	0		229	1000	0		321	464	0		188	920	116	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	222	1065	0		229	1000	0		321	464	0		188	920	116	

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00	
Final Sat.:	3200	4800	1600		3200	4800	1600		3200	4800	1600		3200	4800	1600	

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.07	0.22	0.00		0.07	0.21	0.00		0.10	0.10	0.00		0.06	0.19	0.07	
Crit Moves:	****				****				****				****			

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Grand/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.714

Loss Time (sec): 10 (Y+R=4.0 sec) 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:	Ovl				Include				Ovl				Ovl							
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	3	0	1	2	0	2	1	0	2	0	2	0	1	2	0	2	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	221	910	309	298	854	240	309	615	298	337	537	250				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	221	910	309	298	854	240	309	615	298	337	537	250				
Added Vol:	0	0	0	0	0	0	0	0	0	50	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	221	910	309	298	854	240	309	615	298	387	537	250				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97				
PHF Volume:	228	938	319	307	880	247	319	634	307	399	554	258				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	228	938	319	307	880	247	319	634	307	399	554	258				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	228	938	319	307	880	247	319	634	307	399	554	258				
OvlAdjVol:	119								193				104			

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00	1.00	1.00	1.00				
Lanes:	2.00	3.00	1.00	2.00	2.34	0.66	2.00	2.00	1.00	2.00	2.00	1.00				
Final Sat.:	3200	4800	1600	3200	3747	1053	3200	3200	1600	3200	3200	1600				

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.07	0.20	0.20	0.10	0.23	0.23	0.10	0.20	0.19	0.12	0.17	0.16				
OvlAdjV/S:	0.07								0.12				0.07			
Crit Moves:	****				****				****				****			

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Bonita/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.599

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 40 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				Ovl				Include				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	1	0	1	0	1	2	0	1	0	1	2	0	1	1	0	1	0	1	1	0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	92	26	90	292	17	158	174	924	46	27	634	154				
Growth Adj:	1.00	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	26	90	292	17	158	174	924	46	27	634	154				
Added Vol:	50	0	0	0	0	0	0	0	0	50	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	142	26	90	292	17	158	174	924	46	77	634	154				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	142	26	90	292	17	158	174	924	46	77	634	154				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	142	26	90	292	17	158	174	924	46	77	634	154				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	142	26	90	292	17	158	174	924	46	77	634	154				
OvlAdjVol:	71															

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.91	0.09	1.00	1.61	0.39				
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	3048	152	1600	2575	625				

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.09	0.02	0.06	0.09	0.01	0.10	0.05	0.30	0.30	0.05	0.25	0.25				
OvlAdjV/S:	0.04															
Crit Moves:	****				****				****							

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Valley/Temple

Cycle (sec): 100 Critical Vol./Cap.(X): 0.745
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 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
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	1	0	1	0	2	1	0

Volume Module:

Base Vol:	161	664	52	212	354	134	219	1045	181	80	657	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	161	664	52	212	354	134	219	1045	181	80	657	108
Added Vol:	50	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	211	664	52	212	354	134	219	1045	181	80	657	108
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	211	664	52	212	354	134	219	1045	181	80	657	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	211	664	52	212	354	134	219	1045	181	80	657	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	211	664	52	212	354	134	219	1045	181	80	657	108

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	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.56	0.44	1.00	2.58	0.42
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	4091	709	1600	4122	678

Capacity Analysis Module:

Vol/Sat:	0.13	0.21	0.03	0.13	0.11	0.08	0.14	0.26	0.26	0.05	0.16	0.16
Crit Moves:	****			****			****			****		

WPS Truck Haul Congestion
Existing With Truck Haul
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Grand/Valley

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 58 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:	Ignore				Ignore				Ignore				Include							
Min. Green:	0		0		0	0		0		0	0		0		0	0		0		0
Lanes:	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	219	752	131		323	1123	194		522	1234	282		309	562	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:	219	752	131		323	1123	194		522	1234	282		309	562	127	
Added Vol:	0	0	0		50	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	219	752	131		373	1123	194		522	1234	282		309	562	127	
User Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
PHF Volume:	219	752	0		373	1123	0		522	1234	0		309	562	127	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	219	752	0		373	1123	0		522	1234	0		309	562	127	
PCE Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	1.00	
FinalVolume:	219	752	0		373	1123	0		522	1234	0		309	562	127	

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
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	1.00	1.00		1.00	1.00	1.00	
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00		2.00	3.00	1.00	
Final Sat.:	3200	4800	1600		3200	4800	1600		3200	4800	1600		3200	4800	1600	

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.07	0.16	0.00		0.12	0.23	0.00		0.16	0.26	0.00		0.10	0.12	0.08	
Crit Moves:	****				****				****				****			
