Transportation Impact Study
for
Granada Hills TK-12 Charter School
at
17081 Devonshire Street, Los Angeles, CA 91325
Case No. 42118

Presented to:

City of Los Angeles
Department of Transportation (LADOT)
Valley Development Review
6262 Van Nuys Boulevard, Room 320
Van Nuys, Los Angeles, CA 91401

Prepared for:

Granada Hills Charter
10535 Zelzah Avenue
Granada Hills, Los Angeles, CA 91344

Prepared by:

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March 13, 2019

TRANSPORTATION IMPACT STUDY

GRANADA HILLS CHARTER SCHOOL'S
TK-12 CHARTER SCHOOL CAMPUS
17081 DEVONSHIRE STREET
LOS ANGELES, CA 91325

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CITY OF LOS ANGELES, CA

ENGINEER'S DECLARATION/CERTIFICATION

Adopted by City Council

Date: _____

Resolution: _____

I, Fred Minagar, do hereby certify that this Transportation Impact Study for the City of Los Angeles was performed under my supervision and is accurate and complete. I further certify that I am both experienced in performing studies of this type and duly registered in the State of California as a professional Civil Engineer. I hereby affirm that, to the best of my knowledge, information and belief, the following report was prepared in full compliance with the standards, guidelines and direction of the City of Los Angeles Department of Transportation and all technical requirements adopted therefrom.

Fred Minagar, MS, RCE, PE, Registration No. 53466
Project Manager

EXECUTIVE SUMMARY

The *Granada Hills Charter High School* is proposing to develop and operate a public charter school for Grades TK through 12 in the Granada Hills neighborhood of Los Angeles. The proposed project (referred to as "GHCS" hereafter) is located at the northeast corner of Devonshire Street and Amestoy Avenue, where there is an existing private elementary school (Valor Academy, 400 students Grades K-5) and high school (iGranada, 360 students Grades 9-12) currently in operation. The proposed GHCS Project will comprise a total maximum enrollment of 1,925 students by the 2023-2024 school year, during which time the existing K-5 private elementary school will no longer be in operation and the existing high school will have increased to a capacity of 500 students, having expanded by an additional 35 students each year until 2022. The remaining 1,425 TK-8 GHCS students will also be added to the school's enrollment incrementally until 2023.

Based on the findings of the transportation impact analysis, it is anticipated that the proposed GHCS project will generate a significant traffic impact at two (2) existing nearby signalized intersections during the AM "student drop-off" peak hour, including intersections along Devonshire Street at Amestoy Avenue and Balboa Boulevard. Two other related development projects identified by the City which are anticipated to be constructed within the same time frame and vicinity of the project were also considered in the analysis. Together with the proposed project, these related projects are expected to generate a cumulative traffic impact at the same identified intersections. Several mitigation and transportation demand management (TDM) measures have been recommended to address the aforementioned traffic impacts, and their successful implementation would reduce both project-related and cumulative impacts to levels of insignificance, while also ensuring adequate multi-modal access, parking, and the maintained integrity of the existing transportation environment. The following mitigation measures are proposed:

- Implement a staggered bell schedule to offset elementary, middle and high school student arrival times to minimize the impact of morning school trips on the adjacent street network, including the following hours:
    - 6:45AM – 7:25AM, High School
    - 7:15AM – 7:45AM, Middle School
    - 7:45AM – 8:15AM, TK and Elementary School
- Implement a 40-space, fixed-cap parking program for high school students to effectively reduce the number of single-auto trips generated by high school students of driving age;
- Implement a formal campus-wide rideshare program to connect parents and students from families living in the same area, who are otherwise not included in either a multiple-child program (i.e., traveling in single-family vehicles) or driving to school in their own car;
- Provide 241 bicycle racks and miscellaneous storage lockers to encourage alternative travel to and from the school, and develop a comprehensive on-site education program to incentivize all varieties of non-motorized travel modes, including walking, skateboarding, and scooters; and
- Add a Tow Away No Stopping Zone to restrict parking from at least 7 to 9 AM on school days (see page 36).

1.0 PROJECT SUMMARY & TIS FINDINGS

This Traffic Impact Study (TIS) Report documents a traffic analysis performed by Minagar & Associates, Inc. for the GHCS project, identifying potential traffic impacts and recommending mitigation measures to reduce any anticipated impacts to less-than-significant levels as needed. The traffic analysis was conducted in accordance with the City of Los Angeles Department of Transportation's latest *Transportation Impact Study Guidelines* (December 2016) and is consistent with the Los Angeles County Congestion Management Program (CMP). The following report focuses on the potential traffic impacts to the surrounding roadway network affected by the project site, and development of mitigation measures at potentially impacted locations.

Traffic analyses were conducted for the "Existing" (Year 2018) and "Future" (maximum enrollment school year, 2023) conditions for ten (10) signalized intersections located in the West San Fernando Valley within the Granada Hills-Knollwood neighborhood community of the City of Los Angeles. For each study location the existing traffic operations were evaluated, future traffic operations were forecast and studied reflecting the project's ultimate build-out conditions, and feasible mitigation measures were developed to offset the potential traffic impacts due to the project and/or other cumulative developments in the area.

The following section summaries highlight the key points of the traffic impact study.

1.1 TRAFFIC ANALYSIS FORECASTING

The traffic study evaluated the following scenarios:

- Existing (Base) Year 2018 Conditions
- Future Year 2023 Conditions (ambient growth only)
- Future Year 2023 Cumulative Base Conditions (ambient growth + related projects)
- Existing Year 2018 Plus Project Conditions
- Future Year 2023 Plus Project Conditions

1.2 ACCESS, PARKING AND CIRCULATION

There are two primary areas where vehicles are proposed to access and circulate on-site. They are: (1) the office/visitor parking and pick-up/drop-off lot along the south side of the property on Devonshire Street; and (2) the staff parking lot along the north side of the property on Hiawatha Street. A review of the proposed site plan shows that the parking and access/circulation system for these areas would function adequately without any major adverse impacts to the surrounding residential streets. Most of the project traffic will consist of student drop-offs which will access the southerly lot at the southeast driveway (one-way entry), circulate in a counter-clockwise direction and queue up along the north curb to unload students, exit the queue lane to merge back into the left-hand passing lane, and finally leave the parking lot via one of two exit driveways bearing either northbound on Amestoy Avenue or westbound on Devonshire Street. The southerly parking will provide 28 parking stalls for visitors and office/administration personnel.

The northerly parking lot along Hiawatha Street will provide 91 parking spaces for faculty/staff members, and 40 parking spaces for high school students of driving age who have been granted permission to park on-site.

1.3 ROADWAY SEGMENT LOS IMPACTS

Due to the nature of the proposed school use, a residential street impact analysis is not required and thus was not prepared to determine the potential for such impacts. The proposed site access and student drop-off/pick-up for the GHCS Project will be provided primarily via Devonshire Street, which is a Major Highway (Class II). Implementation of the proposed mitigation measures as part of the impact analysis is expected to minimize any potential for residential cut-through traffic in the neighborhoods north of Devonshire Street during the AM peak hour.

1.4 CONGESTION MANAGEMENT PROGRAM (CMP) COMPLIANCE

The SR-118 freeway is the nearest CMP-designated facility to the project site, located approximately 1.5 miles to the north with a major interchange at Balboa Boulevard. Project traffic will be generated during the peak hours of the day within typical school hours, and will originate predominantly from local neighborhoods and residential zones. Based on the requirements of the latest Los Angeles County Congestion Management Program (2010 CMP), the GHCS Project would not generate an excess of 150 directional trips onto the CMP network. Given the less-than-significant project impact on the County's CMP system, a detailed CMP freeway segment analysis is thus not required.

1.5 COMMUNITY PLAN LOCAL COMPLIANCE

Based on the collective criteria provided in the City of Los Angeles' Granada Hills-Knollwood Community Plan, the proposed GHCS Project is found to be in compliance. The project specifically meets community goals and policies relating to the promotion of alternative modes of travel—such as walking, bicycling, use of public transportation—and will provide adequate non-motorized access and other on-site amenities to ensure that the multi-modal mobility needs of the Granada Hills-Knollwood CPA are satisfied in conjunction with the development of the GHCS project.

1.6 INTERSECTION LEVEL OF SERVICE (LOS) SUMMARY

Weekday morning (AM) and afternoon (PM) traffic counts were collected at each of the ten signalized study intersections. An additional set of supplemental traffic counts were also collected at three (3) unsignalized intersection in the neighborhood area surrounding the school site to provide assistance in understanding existing local traffic patterns. Based on prior discussions with LADOT regarding the typical operations of other similar charter school projects, it was readily accepted that the afternoon/pick-up hour of site traffic will occur outside of the regular evening peak hour on the street network. Therefore, this traffic analysis has focused on determining the potential traffic impacts of the Project during the critical morning (AM) student drop-off period, rather than the afternoon pick-up period. During this AM peak hour, eight out of the ten study

area intersections are currently operating at acceptable Levels of Service (LOS "D" or better under Existing Year 2018 conditions). The two intersections that are not operating adequately—located on Balboa Boulevard at Devonshire Street and the SR-118 Westbound On/Off-Ramps, respectively—are currently operating at a deficient LOS "F" during the AM peak hour.

- Under Future (Year 2023) conditions without the proposed GHCS Project, overall traffic conditions during the morning peak hour will somewhat worsen due to background ambient traffic growth and the traffic generated by nearby related developments. Under this "Future Cumulative Base Without Project" scenario, seven of the ten study area intersections will remain operating at their Existing Year 2018 LOS. The remaining three intersections—located at Devonshire/Zelzah, Devonshire/Amestoy, and Balboa/Chatsworth—will decrease in AM peak hour level of service from LOS C to LOS D, from LOS A to LOS B, and from LOS D to LOS E, respectively, due to the growth in background traffic and the nearby/related project traffic added to the street network between the Years 2018 and 2023.
- The results of the Existing Year 2018 Plus Project analysis show that the project, if completed and occupied within the current built environment, would degrade the level of service of only one intersection, Devonshire Street at Amestoy Avenue, from LOS A to LOS B during the AM peak hour.
- The Future (Year 2023) Plus Project analysis reveals that nine of the ten study intersections will maintain their pre-project levels of service with the addition of inbound and outbound AM peak hour project traffic. The intersection of Devonshire Street at Amestoy Avenue will experience a level of service degradation from LOS B to LOS C with the addition of project traffic during the AM peak hour in the Year 2023.

1.7 INTERSECTION IMPACT ANALYSIS SUMMARY

The findings of the traffic impact analysis reveal that the following two (2) study area intersections will experience a significant impact in weekday AM peak hour traffic operations directly resulting from the addition of vehicular trips generated by the GHCS Project:

- Location #3.) Devonshire Street at Amestoy Avenue
- Location #4) Devonshire Street at Balboa Boulevard

The above two study area intersections are therefore subject to the development of feasible mitigation measures and/or transportation demand management (TDM) measures to reduce the project's traffic impact to insignificant levels. Section 6 of this report discusses in detail the significance criteria used in the traffic analysis, and the project's compliance with these criteria.

1.8 MITIGATION RECOMMENDATIONS

The results of the impact analysis reveal that two out of the ten studied intersections would be significantly impacted by the added project trips during the AM peak hour. A combination of transportation demand management (TDM) and capacity enhancement measures to restore project impacts to less-than-significant levels during the AM student drop-off period has been developed in collaboration with the GHC School Board, and are subject to the ultimate approval of LADOT. The proposed measures include:

- Implementing a staggered bell schedule to offset elementary, middle and high school student arrival times to minimize the impact of morning school trips on the adjacent street network;

- Higher-than-expected family carpooling benefits due to students being able to spend their entire 14-year educational experience on the same TK-12 campus, thus allowing families with multiple children to carpool all of their children on a single trip to a single location;

- Implementing a limited number of fixed-cap permitted high school parking spaces whereby only 16% of legal driving age high school students will be allowed park on-site, prohibitively reducing the number of single-auto trips by high school students typically experienced on other similar high school campuses;

- Implementing a formal campus-wide "ridesharing" program designed to connect parents and students from families living in the same area, who are otherwise not included in a multiple-child program (i.e., traveling in single-family vehicles) or driving to school in their own car, thus reducing the school's expected trip rate due to single-occupancy vehicles;

- Provisions for 241 bicycle racks and miscellaneous storage lockers to encourage alternative travel to and from the school, and the development of a comprehensive on-site education program to incentivize non-motorized travel modes, including walking, skateboarding, or taking a scooter to school; and

- Reconfiguring the westbound cross-sectional lane configuration on Devonshire Street at Balboa Boulevard westerly to Amestoy Avenue to add one (1) additional travel lane, and convert the Class-II bicycle lane plus on-street parking to a Class-II bicycle lane with no on-street parking;

As discussed in further detail in Section 7, the applicant will incorporate the above measures to ensure adequate multi-modal access and parking, and to allow the project to continue to generate a less-than-significant impact on Devonshire Street and other nearby facilities in the surrounding street system.

2.0 INTRODUCTION

This section provides an overall description of the proposed development, the scope of the study for this Transportation Impact Study (TIS), and a summary of the methodologies, thresholds and evaluation parameters of the traffic analyses and mitigation recommendations contained herein.

2.1 PROJECT DESCRIPTION AND CONTEXT

The proposed GHCS Project consists of a 1,925-student charter school for Grades TK through 12. The proposed school enrollment will consist of a maximum of 75 children in TK (4% of total student population), 900 elementary school students (47% Grades K-5), 450 middle school students (23% Grades 6-8), and 500 high school students (26% Grades 9-12). The project site is located approximately two miles west of the I-405 Freeway and 1.5 miles south of the SR-118 freeway in the Granada Hills-Knollwood community of the City of Los Angeles. The project site is bound by Devonshire Street to the south, Amestoy Avenue to the west, Hiawatha Street to the north, and community commercial development to the east. Primary project access will be provided from two driveways on Devonshire Street.

The GHCS campus will be developed on the northeast corner of Devonshire Street and Amestoy Avenue, where there is an existing private elementary school (Valor Academy, 400 students Grades K-5) and high school (iGranada, 360 students Grades 9-12) currently in operation. The proposed GHCS Project will comprise a total maximum enrollment of 1,925 students by the 2023-2024 school year, during which time the existing K-5 private elementary school will no longer be in operation and the existing high school will have increased to a capacity of 500 students, having expanded by an additional 35 students each year until 2022. The remaining 1,425 TK-8 GHCS students will also be added to the school's enrollment incrementally until 2023.

Two main parking lots will be provided on-site, including a 131-space northerly lot along Hiawatha Street for faculty/staff members and limited high school student parking, and a 28-space southerly lot along Devonshire Street for office/administrative personnel, visitors and student pick-up/drop-off activities.

2.2 REPORT AND STUDY GUIDELINES

This report summarizes and documents the findings of a Transportation Impact Study (TIS) study prepared in accordance with the latest City of Los Angeles Department of Transportation (LADOT) *Transportation Impact Study Guidelines* (December 2016), and consistent with the Los Angeles County Congestion Management Program (CMP) and the local Granada Hills-Knollwood Community Plan goals and policies. The TIS discusses existing transportation and circulation conditions, identifies potential traffic impacts due to the project on the surrounding roadway system and provides recommendations to mitigate potential impacts to less-than-significant levels upon the ultimate build-out of the Project which includes a total maximum enrollment of 1,925 students.

2.3 ANALYSIS METHODOLOGY

LADOT is responsible for transportation issues within the City of Los Angeles boundaries and reviews the transportation/traffic studies prepared for development projects of all types for which the City is the lead agency, in addition to other public agency projects (County, state, or federal) located within, or that may affect, the City. The analysis methodology for the traffic study is based on LADOT's internal procedures as described in the latest Transportation Impact Study Guidelines in conjunction with the California Environmental Quality Act (CEQA) project review process and the requirements of the Los Angeles County Congestion Management Program (CMP).

2.3.1 Scope of Study

Project Area and Study Locations – Through direct consultation from LADOT, an influence area containing critical intersections in the Granada Hills community was identified around the proposed GHCS project site. Within this area, ten (10) study locations were selected representing a combination of major street junctions and intersections likely to provide primary access to the site and could potentially be impacted by the traffic generation of the proposed project. Based on this study area, the locations shown in **TABLE 1** were selected for analysis in the traffic study. All ten study intersections are traffic signal-controlled. **FIGURE 1** illustrates the regional location of the GHCS Project site. **FIGURE 2** shows the project vicinity and study area.

TABLE 1
Study Locations

#	Location	Intersection Control
1	Devonshire Street at Zelzah Avenue	Signalized
2	Devonshire Street at Louise Avenue	Signalized
3	Devonshire Street at Amestoy Avenue	Signalized
4	Devonshire Street at Balboa Boulevard	Signalized
5	Devonshire Street at I-405 Southbound On/Off-Ramps	Signalized
6	Devonshire Street at I-405 Northbound On/Off-Ramps	Signalized
7	Balboa Boulevard at San Jose Street	Signalized
8	Balboa Boulevard at Chatsworth Street	Signalized
9	Balboa Boulevard at SR-118 Eastbound On/Off-Ramps	Signalized
10	Balboa Boulevard at SR-118 Westbound On/Off-Ramps	Signalized

Figure 1. Regional Location

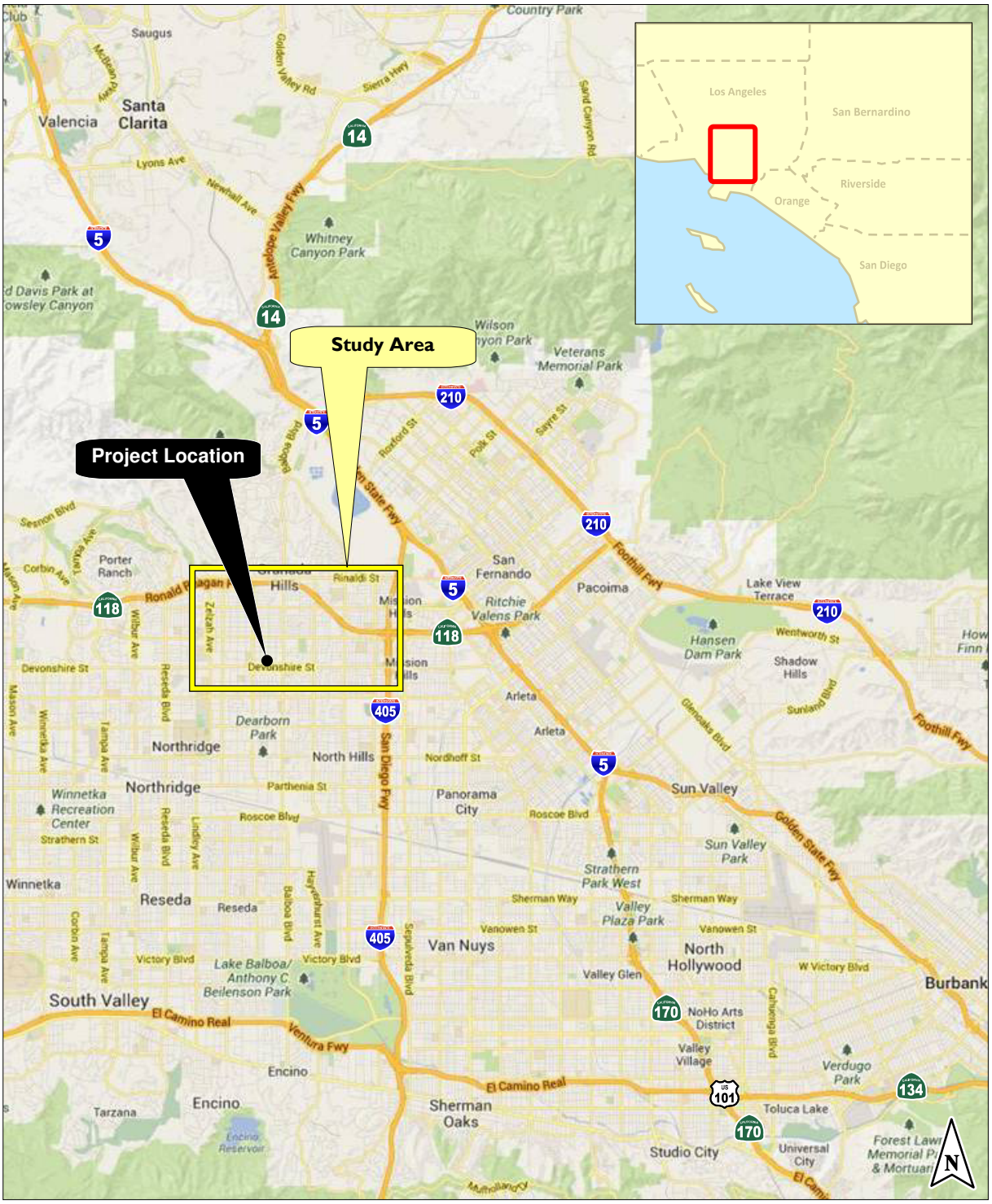
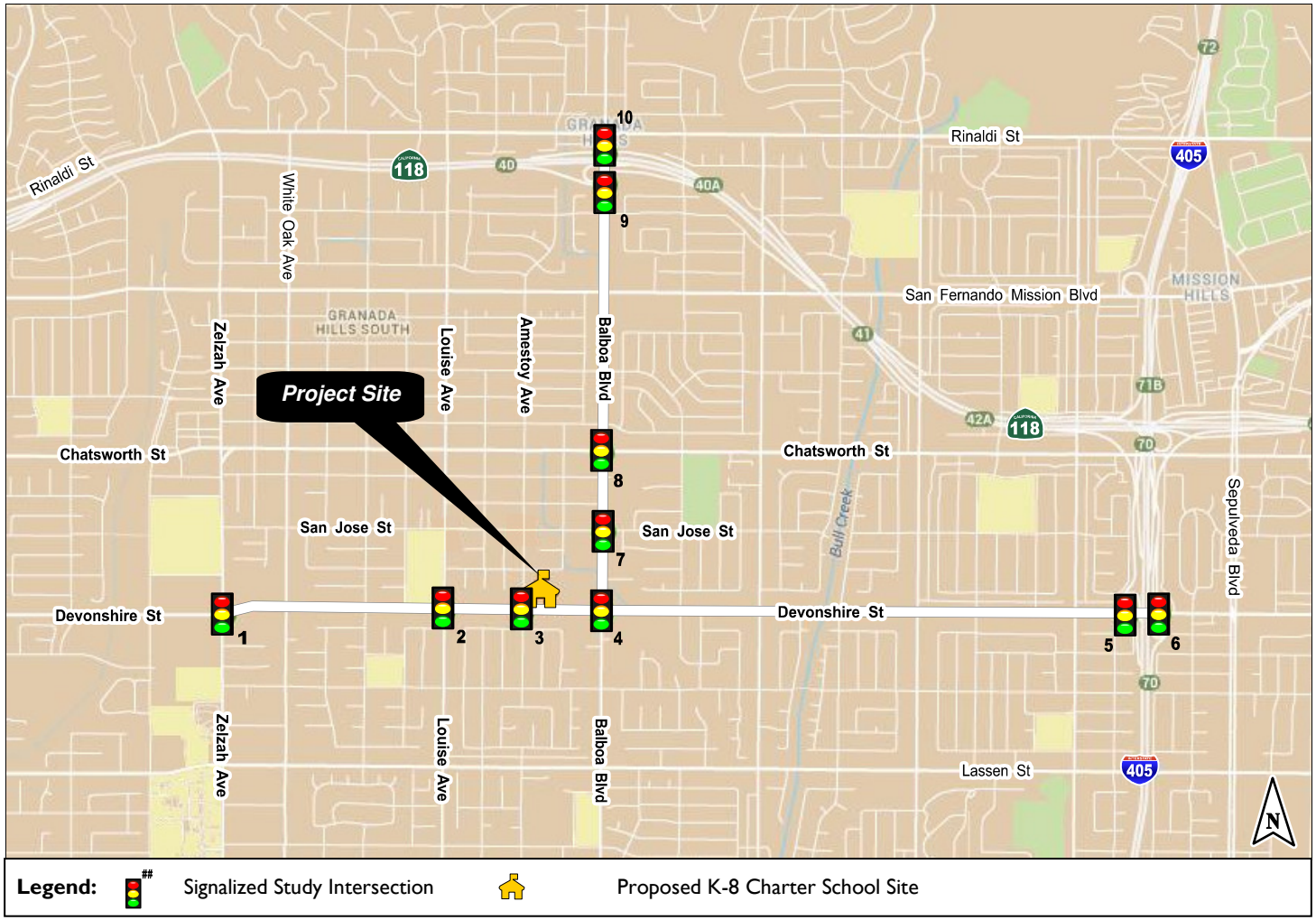


Figure 2. Project Vicinity and Study Intersections



Traffic Counts – Manual intersection turning movement traffic counts were collected at each intersection and used to evaluate the existing traffic conditions. Traffic counts were taken on typical school weekdays in September 2018 in the morning and afternoon peak traffic periods between 7:00AM to 9:00AM and 4:00PM to 6:00PM.

Based on prior discussions with the LADOT regarding similar charter school projects located in comparable neighborhood settings in the Valley area of the City of Los Angeles, it was reasonably accepted that the proposed charter school would not generate substantial traffic during the regular evening peak hour of the surrounding street network, since after-school activities and the afternoon dismissal bells would occur before the typical PM peak hour of adjacent street traffic. It was therefore decided that a PM peak hour traffic analysis for the project would not be required. The PM peak period traffic count data collected by Minagar & Associates, Inc. has been included for documentation purposes and reference only, and provided under **APPENDIX A**.

Analysis Scenarios – Based on LADOT's transportation impact study guidelines, the following four (4) scenarios were developed for analysis in the study:

- *Existing (Base) Year 2018 Conditions*. Represents the baseline conditions reflecting recently collected traffic volumes, observations and measurements in the field at each of the study intersections.

- *Future (Year 2023) Conditions*. Future analysis scenario estimated by projecting the existing traffic volumes forward to the expected build-out year of the project (Year 2023), without the inclusion of project traffic itself. Based on LADOT's direction, the existing traffic volumes have been increased by a factor of +1.0% per year to reflect annual ambient traffic growth in the area.

- *Future Year (2023) Cumulative Conditions*. Represents the Year 2023 forecast conditions with the inclusion of additional vehicular trips generated by nearby/related developments, without the proposed project traffic.

- *Existing Plus Project Conditions*. Although not required to discern project impacts, an existing plus project analysis was conducted to compare the existing conditions with a hypothetical "addition" of project traffic on the current street network and surrounding transportation environment.

- *Future (Year 2023) Plus Project Conditions*. Cumulative conditions during the Year 2023 conditions which incorporate the growth of ambient traffic, added traffic from nearby/related projects, and peak hour trips from the proposed GHCS project.

- *Mitigated Scenarios*. Where significant project-based or cumulative traffic impacts are identified in the analysis, this condition represents the analysis of improved/restorative intersection LOS with the implementation of the proposed mitigation measures.

2.3.2 Analysis of Signalized Intersections

Intersection and roadway operating conditions are defined in terms of "Level of Service" (LOS), a grading scale used to indicate the quality of travel speed, vehicle maneuverability and overall traffic flow. Level of Service ranges from LOS "A," representing free-flow conditions, to LOS "F," which indicates failing or severely congested traffic flow. Both the City of Los Angeles and the County of Los Angeles CMP recognize LOS "D" as the minimum satisfactory Level of Service during peak hour conditions. The definition of the range of Levels of Service is shown in Figure 3, LADOT's Intersection Level of Service (LOS) Definitions.

The analysis of the traffic volumes and calculation of intersection LOS was performed through the use of the Critical Movement Analysis (CMA) technique, and adapted by LADOT for the analysis of intersection traffic conditions specifically in the City of Los Angeles and its various communities. The CMA methodology is based on procedures outlined in Circular Number 212 of the Transportation Research Board which outputs an intersection LOS value from the summed comparison of roadway lane capacities versus critical movement volumes.

FIGURE 3 shows the LOS thresholds for intersections developed by the TRB and adapted for use in the City of Los Angeles by LADOT. As discussed in the following sections, determination of potential project traffic impacts was carried out in through the following steps:

[1] Estimate the gross peak hour traffic generated by the GHCS based on trip generation rates developed by the Institute of Transportation Engineers (ITE);

[2] Adjust the project trip generation to net as appropriate to factor in any existing land use trip credits and deduct any existing trips which will be removed or replaced by the proposed Project.

[3] Develop a distribution model for project trips based on the location and density of the surrounding residential neighborhoods, nearby schools, school district boundaries, and logical inbound/outbound routes to the GHCS campus site.

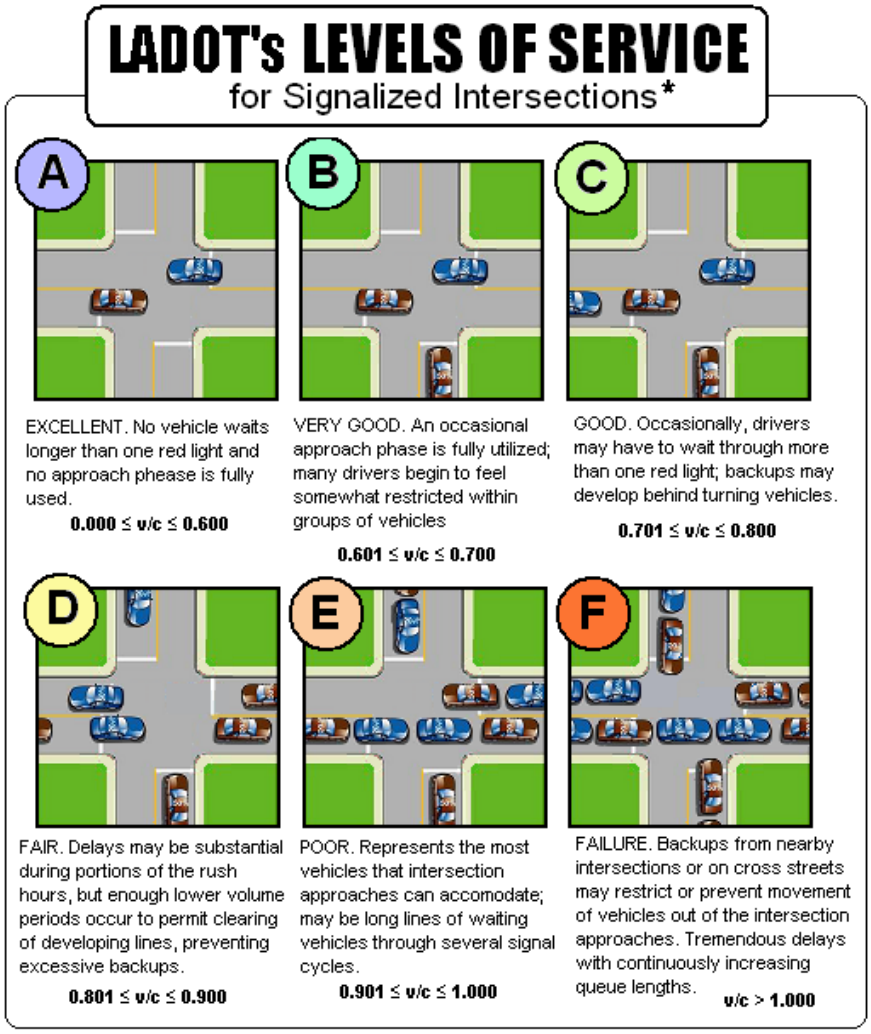
[4] Assign directional peak hour project trips to the roadway network.

[5] Analyze the existing (Year 2018) and projected future traffic conditions (Year 2023) without and with the GHCS project;

[6] Evaluate the change in each study intersection's volume-to-capacity (v/c) ratio and subsequent level of service (LOS) due to each cumulative traffic and project trips;

[7] Compare the degree of intersection v/c and LOS change with LADOT's established impact significance thresholds and criteria to determine whether the anticipated traffic impacts caused by the project trips are considered significant, and would require implementation of feasible mitigation measures to be reduced to less-than-significant levels.

FIGURE 3



* Source: "Table 1: Level of Service Definitions for Signalized Intersections", 2016 *LADOT Transportation Impact Study Guidelines* (December 2016), based on the Transportation Research Board (TRB)'s *Interim Materials on Highway Capacity*, Circular No. 212, Jan. 1980; and *Highway Capacity Manual*, 2010.

2.3.3 Residential Roadway Segment Analysis

Based on LADOT's guidelines, given that the proposed project is a school and not a non-residential development, a residential roadway segment analysis analyzing the potential for cut-through trips is not required as part of the traffic study. Although the signalized intersections on Devonshire Street from Louise Avenue to Balboa Boulevard are operating under congested conditions during the AM peak hour, inbound and outbound vehicles are not expected to bypass the arterial since the proposed site access will be provided primarily along Devonshire Street. Only 7% of the new site traffic is expected to arrive from residential neighborhoods to the north via Amestoy Avenue., which would not result in any major residential cut-through traffic during the morning student arrival period.

2.3.4 Determination of Significant Impacts

Traffic impacts have been analyzed under the context of LADOT's TSPP Manual and the Los Angeles County Metropolitan Transportation Authority's (Metro) current Congestion Management Program (CMP). The impact significance criteria for intersections are based on LADOT's sliding scale shown in **TABLE 2** below. The TSPP requires mitigation of project traffic impacts to levels of insignificance where project trips are anticipated to trigger an increase in the overall V/C ratio of a study intersection by an amount equal to or greater than the values shown in the table.

TABLE 2

City of Los Angeles Significant Impact Criteria for Signalized Intersections

LOS	Final V/C	ΔV/C Due to Project
C	>0.701 - 0.800	+0.040 or More
D	>0.801 - 0.900	+0.020 or More
E/F	> 0.900	+0.010 or More

Source: "Table 2: Significant Transportation Impact Thresholds for Development Projects", *LADOT's Transportation Impact Study Guidelines (December 2016)*

For study locations within the Congestion Management Program (CMP) network of Los Angeles County, intersection and freeway significant impacts are defined as the incremental effect of traffic demand on the capacity of the existing transportation system due to project-related increases in traffic. Significance criteria for CMP locations are shown in **TABLE 3**.

For residential streets, a project is considered to have an individually significant impact if it generates an increase in average daily traffic (ADT) upon the subject roadway segments in excess of the thresholds outlined in **TABLE 4**.

TABLE 3

County of Los Angeles Significant Impact Criteria for CMP Facilities

LOS		Change in V/C* Due to Project
Before Project	After Project	
E or better	F**	+0.02 or More (i.e., ≥2%)
F	> 0.900	+0.01 or More

* For intersections; demand-to-capacity (D/C) ratio for freeway mainline segments

** V/C or D/C ratio greater than 1.00

Source: Metro's Congestion Management Program for Los Angeles County

TABLE 4

City of Los Angeles Significant Impact Criteria for Roadway Segments

Projected Final ADT* ("With Project" Conditions)	Increase in ADT Due to Project
0 to 999	120 or more
1,000 or More	12% or More of Final ADT
2,000 or More	10% or More of Final ADT
3,000 or More	8% or More of Final ADT

ADT: Average Daily Traffic (vehicles per day, both directions combined)

3.0 EXISTING (2018) CONDITIONS

This section describes existing conditions regarding land use, existing roadway network, site access and parking, transit and pedestrian facilities, and the Existing Year (2018) intersection levels of service.

3.1 LOCAL NEIGHBORHOOD SETTING

3.1.1 Existing Land Use and Zoning

The Granada Hills-Knollwood Plan area is generally bounded by the County of Los Angeles on the north, Devonshire and Lassen Streets on the south, and the Golden State Freeway (I-5) and San Diego Freeway (I-405) on the east. The 118 Freeway (SR-118) traverses the Plan area east/west; and Rinaldi Street serves as a defining border between the northern, less densely populated areas, and the southern, more developed sections. Granada Hills-Knollwood is developed with mostly single-family houses, some multiple-family and commercial areas, a small amount of industrial uses, and a significant amount of open space.

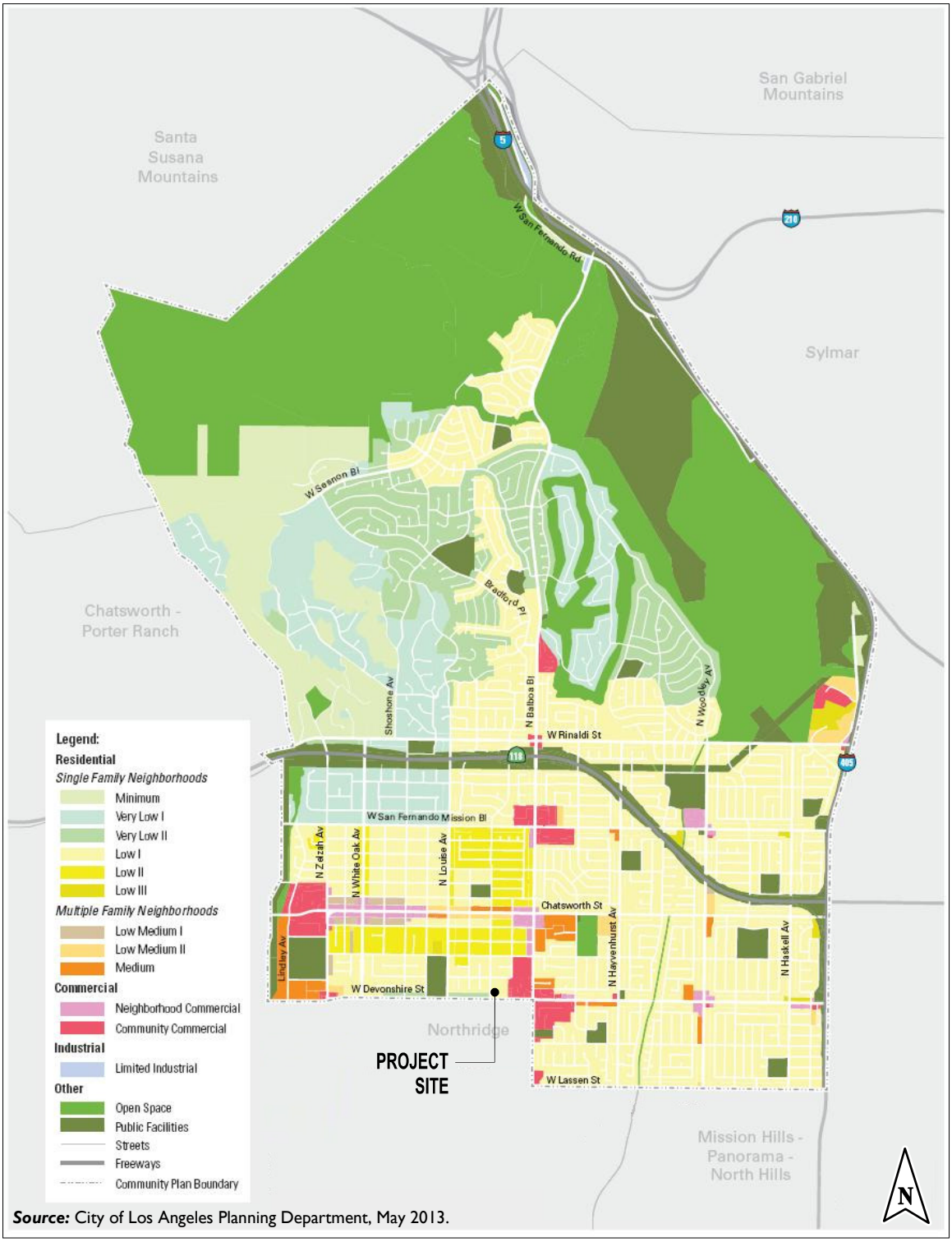
Granada Hills-Knollwood is surrounded by Sylmar to the northeast, Mission Hills-Panorama City-North Hills to the southeast, Northridge to the south, and Chatsworth-Porter Ranch to the southwest, with unincorporated County of Los Angeles to the northwest. Granada Hills-Knollwood is predominantly a residential community, where a significant number of residents commute to nearby communities for work.

The GHCS project site is located in the south part of Granada Hills, within an existing single-family residential neighborhood along Devonshire Street. The surrounding area is predominantly low-density residential, with several parks and schools, and some commercial areas along Balboa Boulevard within a two-mile radius of the project site. The site is currently occupied by *Valor Academy,* a 400-student private elementary school serving grades K through 5, and *iGranada*, a 360-student high school serving grades 9 through 12. **FIGURE 4** depicts the existing land use element of the community plan area with respect to the project site.

3.1.2 Existing Public Transit

The Los Angeles County Metropolitan Transportation Authority (MTA) provides an extensive system of bus and rail lines throughout the Granada Hills-Knollwood community. Regional transit information available through MTA indicates that several bus routes have stops within a reasonable walking distance (approximately ¼ mile) of the project site. In addition, LADOT also provides several Commuter Express routes near

Figure 4. Community Plan Area Land Use Map



Source: City of Los Angeles Planning Department, May 2013.

the project site that serve the local Granada Hills-Knollwood area and surrounding communities.

MTA Bus Service

Line 158 provides local service between Chatsworth, Northridge, Granada Hills, North Hills, Arleta, Panorama City, Van Nuys, and Sherman Oaks. In the project vicinity, Line 158 provides service along Devonshire Street and stops on Devonshire Street at Balboa Boulevard. Weekday service on Line 158 is provided on headways of approximately 15 to 30 minutes during AM peak hours and one hour for the rest of the day.

Lines 236 and **237** provide service between Encino, Northridge, Granada Hills, North Hills, Sylmar, and San Fernando. In the project vicinity, Line 236/237 provides service along Balboa Boulevard and stops on Balboa Boulevard at Devonshire Street and San Jose Street. Weekday service on Line 236/237 are provided on headways of approximately 10 to 30 minutes during AM and PM peak hours and one hour for the remainder of the day.

Line 239 provides local service between Encino and San Fernando primarily along White Oak Avenue, Lindley Avenue, Zelzah Avenue, Chatsworth Street, Louise Avenue, Rinaldi Street, and San Fernando Mission Boulevard. Line 239 traverses the Granada Hills-Knollwood CPA along Zelzah Avenue, Chatsworth Street, Louise Avenue, Rinaldi Street, Haskell Avenue, and San Fernando Mission Boulevard.

LADOT Bus Service

Commuter Express 419 provides peak-hour express bus service from Chatsworth Park to the Downtown Los Angeles area in the morning and reverse service in the evening. Service is provided to Chatsworth, Northridge, Granada Hills, Mission Hills, Downtown Los Angeles, and Exposition Park/USC. In the project vicinity, this line operates along Devonshire Street with a stop provided at Balboa Boulevard. This commuter route operates Monday through Friday only during the peak commute hours, on headways of approximately 15 to 20 minutes.

Commuter Express 573 provides peak-hour express bus service from Chatsworth to Century City (with less reverse service) in the morning, and from Century City to Chatsworth (with less reverse service) in the evening. Along the route, service is provided to Mission Hills, Granada Hills, Northridge, North Hills, Reseda, Encino, Westwood, and Century City. In the project vicinity, this line operates along Balboa Boulevard and Chatsworth Street with a stop provided on Balboa Boulevard at Devonshire Street. This commuter route operates Monday through Friday only, on headways of approximately 15 to 20 minutes.

Commuter Express 574 provides peak-hour express bus service from Sylmar Metrolink Station to the LAX area in the morning and reverse service in the evening. Along the route, service is provided to Sylmar, Granada Hills, North Hills, Reseda, Encino

LAX, and El Segundo. In the project vicinity, this line operates along Balboa Boulevard and Chatsworth Street with a stop provided on Balboa Boulevard at Devonshire Street. This commuter route operates Monday through Friday, only during the peak commute hours, on headways of approximately 25 to 30 minutes.

Commuter Express 574 provides peak-hour express bus service between San Fernando and Redondo Beach through Northridge, Encino, Westchester, and El Segundo. This express line traverses the Granada Hills-Knollwood CPA along Chatsworth Street and Balboa Boulevard.

Santa Clarita Transit Routes

Line 791 and **Line 796** provide express bus service between the Santa Clarita Valley, Chatsworth and Warner Center. Line 791 and Line 796 operate on the Ronald Reagan (SR-118) Freeway during peak hours through the Granada Hills-Knollwood CPA.

Antelope Valley Transit Routes

Line 787 of the Antelope Valley Transit provides express bus service to Chatsworth and Warner Center from the Santa Clarita Valley. Line 787 operates on the Ronald Reagan (SR-118) Freeway during peak hours through the Granada Hills-Knollwood CPA.

FIGURE 5 shows existing transit services in the study area.

3.1.3 Existing Roadway and Circulation System

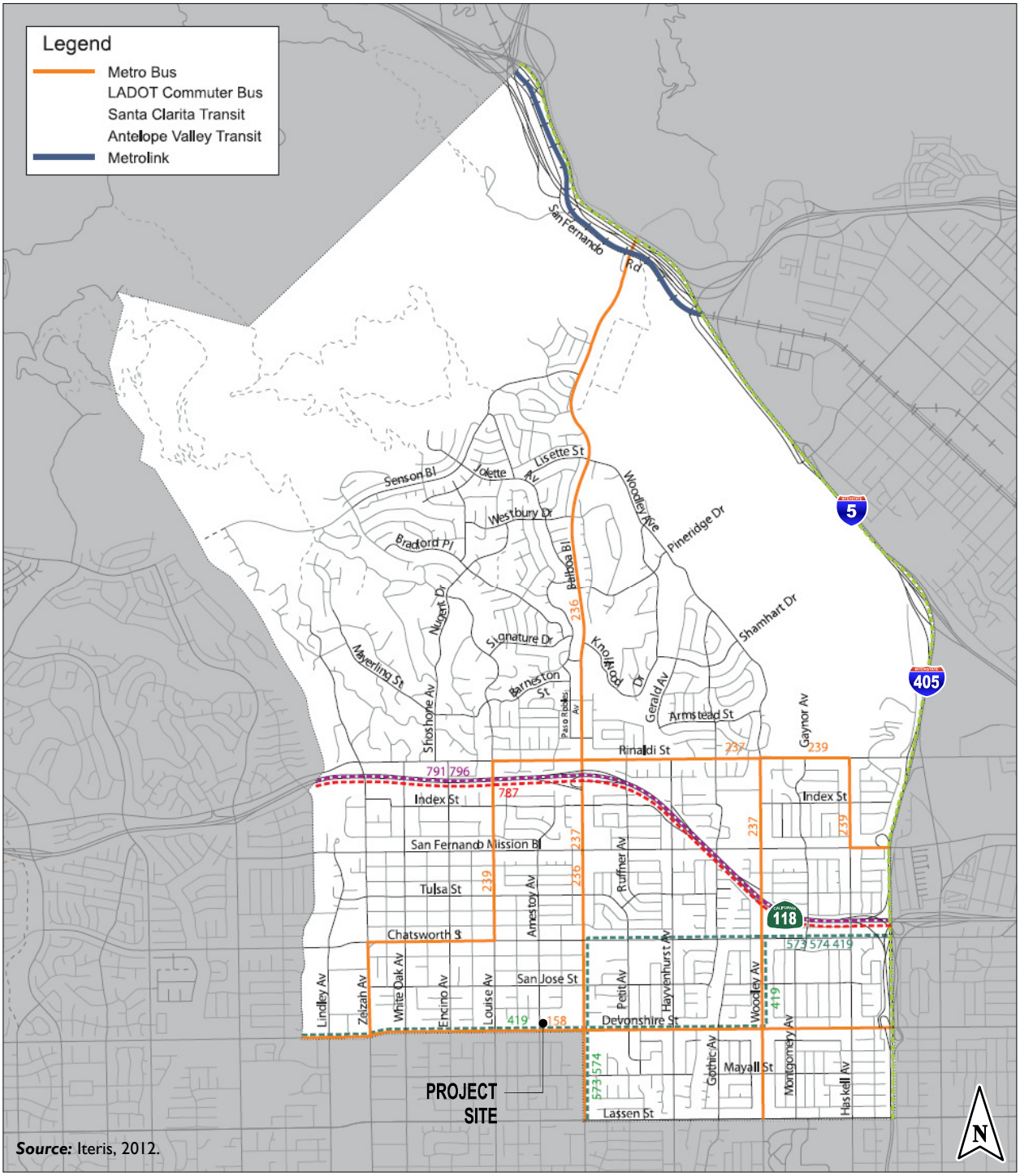
Major existing transportation corridors in the Granada Hills-Knollwood community plan area include north/south arterials such as Balboa Boulevard, White Oak Avenue, Louise Avenue, Hayvenhurst Avenue, and Woodley Avenue, and east/west arterials such Rinaldi Street, San Fernando Mission Boulevard, Chatsworth Street and Devonshire Street. Regional access is provided via the SR-118 freeway which bisects the community and the I-405 freeway to the east. Other regional highways that surround the area include the I-5 freeway to the northeast.

Regional Access

The **Ronald Reagan Freeway (SR-118)** is an east-west-oriented freeway located approximately 1.5 miles north of the project site with a full interchange at Balboa Boulevard. In the project vicinity, the freeway provides four mixed mode travel lanes and one rideshare lane in each direction. SR-118 runs predominantly east/west and is located generally north of the study area. It has four mainline lanes in each direction with ramp access within the study area at Balboa Boulevard.

The **San Diego Freeway (I-405)** is a north-south freeway across the middle of the San

Figure 5. Existing Transit Services



Fernando Valley with a full interchange at Devonshire Street approximately 2 miles to the east of the project site. In the project vicinity, this freeway generally provides four mixed flow lanes and one high-occupancy vehicle (HOV) travel lane per direction, plus auxiliary lanes for some interchanges.

Local Roadway Network

The project vicinity is traversed by a hierarchical grid of roadways south of SR-118, running north/south and east/west. Surface roadways in the Granada Hills-Knollwood CPA are classified as Major Class II Highways (typically 100-104 feet right-of-way and two to three lanes per direction), Secondary Highways (typically 80-90 feet right-of-way and two lanes per direction), Collector Street (typically one lane per direction) and Local streets (one lane per direction). The following is a summary of the main roadways which will be used to access the project site, described in further detail below:

- Devonshire Street
- Balboa Boulevard
- Zelzah Avenue
- Louise Avenue
- Chatsworth Street
- Amestoy Avenue
- San Jose Street

Devonshire Street is an east-west Major Class II Highway which forms the southerly boundary of the project site. In the project vicinity, the roadway provides two through lanes in each direction with a two-way left-turn center lane, and a width that varies from approximately 75 to 80 feet. This roadway provides left-turn channelization at major intersections, including Zelzah Avenue, Amestoy Avenue, Louise Avenue, and Balboa Boulevard. On-street parking is permitted on both sides of the street, with length of time restrictions along many blocks. Devonshire Street provides CL-II bike lanes along both sides of the street. The posted speed limit along Devonshire Street is 40 miles per hour.

Balboa Boulevard is a north-south Major Class II Highway throughout the study area. In the project vicinity, Balboa Boulevard provides three through lanes of traffic in each direction with a two-way left-turn center lane, a curb-to-curb width of approximately 80 feet and left-turn channelization at major intersections, including at Chatsworth Street, San Jose Street, and Devonshire Street. The posted speed limit along Balboa Boulevard is 40 miles per hour.

San Jose Street is an east-west Collector Street located about 1/4-mile north of the project site. In the project vicinity, this roadway provides one through lane in each direction with a width of approximately 40 feet and left-turn channelization at Balboa Boulevard. On-street parking is permitted on both sides of the street, with length of time restrictions along many blocks.

Chatsworth Street is an east-west Secondary Highway located 1/2 mile north of the project site. In the project vicinity, this roadway provides two through lanes in each direction with a width varying from approximately 60 to 80 feet. This roadway provides left-turn channelization at major intersections, including Louise Avenue and Balboa Boulevard. Chatsworth Street is also designated as a CL-III bikeway (bicycle route) facility. The posted speed limit along Chatsworth Street is 35 miles per hour.

Louise Avenue is a north-south Secondary Highway approximately 1/4 mile west of the project site. In the project vicinity, this roadway provides two through lanes in each direction south of Chatsworth Street and one through lane in each direction north of Chatsworth Street with a width varies from approximately 30 to 65 feet. Louise Avenue provides left-turn channelization at major intersections, including at Devonshire Street. The posted speed limit along Louise Avenue is 35 miles per hour.

Zelzah Avenue is designated as a north-south Secondary Highway from Devonshire Street to Chatsworth Street, and as a Collector street north of Chatsworth Street. It has two lanes in each direction and on-street parking on both sides of the street, with length of time restrictions along many blocks. The posted speed limit along Zelzah Avenue is 40 miles per hour.

Existing Pedestrian and Bicycle Facilities

Concrete sidewalks exist along each side of Devonshire Street, providing pedestrian access east/west through the project area. Some areas along the pedestrian walkways have landscaped parkway buffers between the sidewalk and adjacent roadway, and there are a few short discontinuous segments on the south side of Devonshire Street between Zelzah Avenue and Louise Avenue. Marked crosswalks with pedestrian signal phases are provided at each signalized intersection on Devonshire Street in the vicinity of the project, and yellow school-type crosswalks are provided across each leg of the intersection of Amestoy Avenue at Devonshire Street.

Chatsworth Street is designated as a *Pedestrian Priority Street* in the Granada Hills-Knollwood Community Plan, identifying the desire of the community to encourage pedestrian activity between neighborhood, community, and regional centers, and areas adjacent to schools and other public facilities.

The City of Los Angeles' 2010 Bicycle Plan includes existing and planned bicycle facilities throughout the City of Los Angeles and its various communities, including Class I Bicycle Paths, Class II Bicycle Lanes, and Class III Bicycle Routes and Bicycle-Friendly Streets. Bicycle facilities are classified based on a standard typology which has been adopted by the Granada Hills-Knollwood Community Plan. Devonshire Street is designated as a *Bicycle Priority Street* in the Community Plan, and currently provides Class-II bikeways (bicycle lanes) along the north and south sides of the street. Planned bicycle facilities include several proposed bikeways within the Granada Hills-Knollwood CPA, including:

- Devonshire Street from the western community plan boundary to the eastern community plan boundary (Bicycle Lane);
- San Fernando Mission Boulevard from Louise Avenue to the eastern community plan boundary (Bicycle Lane);
- Balboa Boulevard from Lisette Street to Lassen Street (Bicycle Lane);
- Chatsworth Street from the Western Community Plan boundary to the Eastern Community Plan boundary (Bicycle Route);
- Lindley Avenue from San Fernando Mission Road to the Southern Community Plan boundary (Bicycle Friendly Street)

3.2 EXISTING TRAFFIC VOLUMES

Existing traffic volume data for the ten signalized study intersections was collected during the AM and PM peak periods. The traffic counts were collected in September 2018 during typical weekday periods to reflect the peak arrival traffic of schools in session. Detailed turning movement count sheets are provided in **APPENDIX A.**

FIGURE 6 shows the generalized circulation map for the community plan area.

FIGURE 7 illustrates the existing lane configurations and traffic controls at each of the ten signalized key study area intersections.

FIGURE 8 shows the existing AM peak hour traffic volumes for the ten signalized key study area intersections.

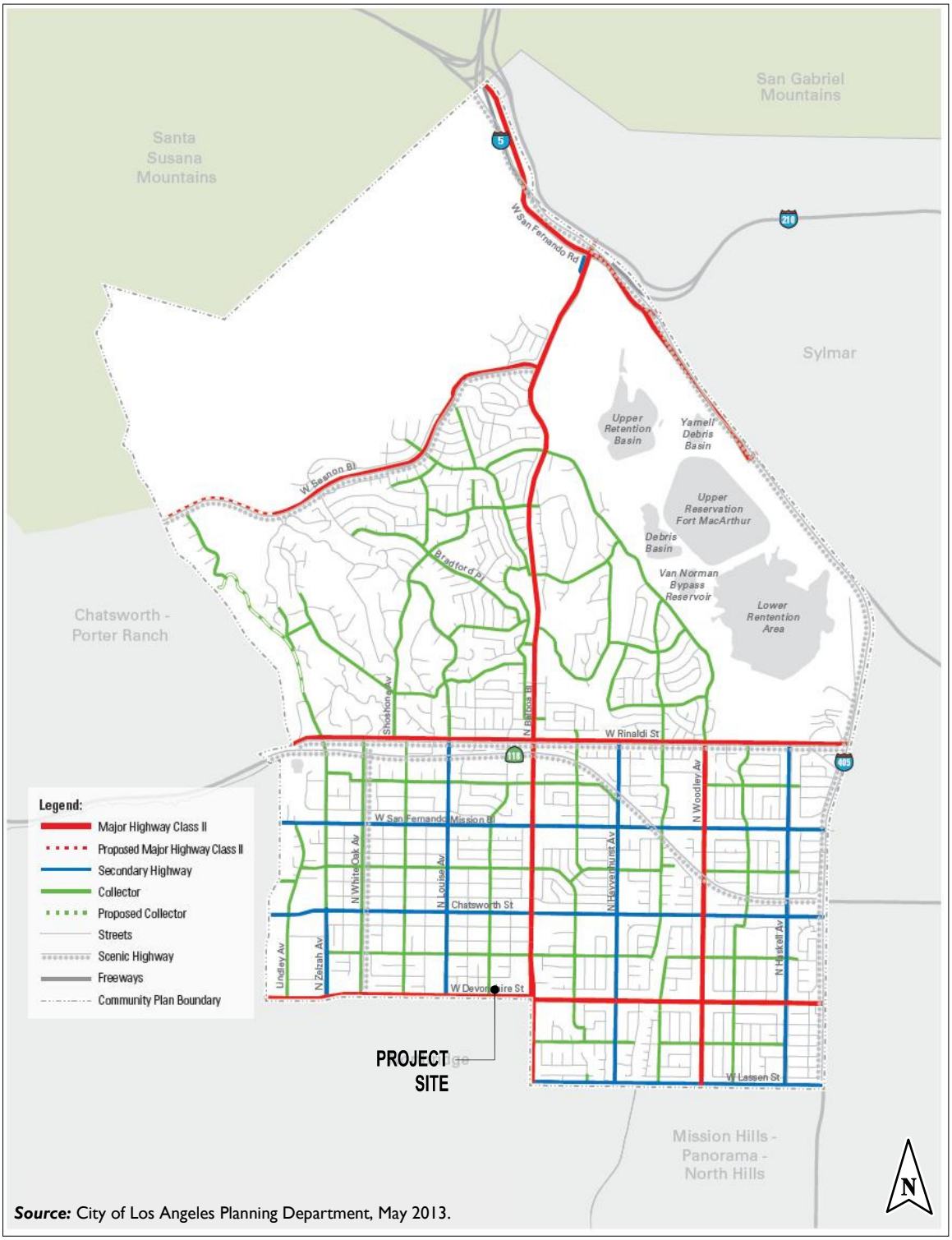
3.3 EXISTING LEVELS OF SERVICE (LOS)

The Existing Year 2018 LOS was determined for each signalized study intersection for the weekday morning (AM) peak periods by calculating the overall intersection volume-to-capacity (v/c). Detailed LOS calculation worksheets are provided in **APPENDIX B**.

3.3.1 Study Intersections Level of Service

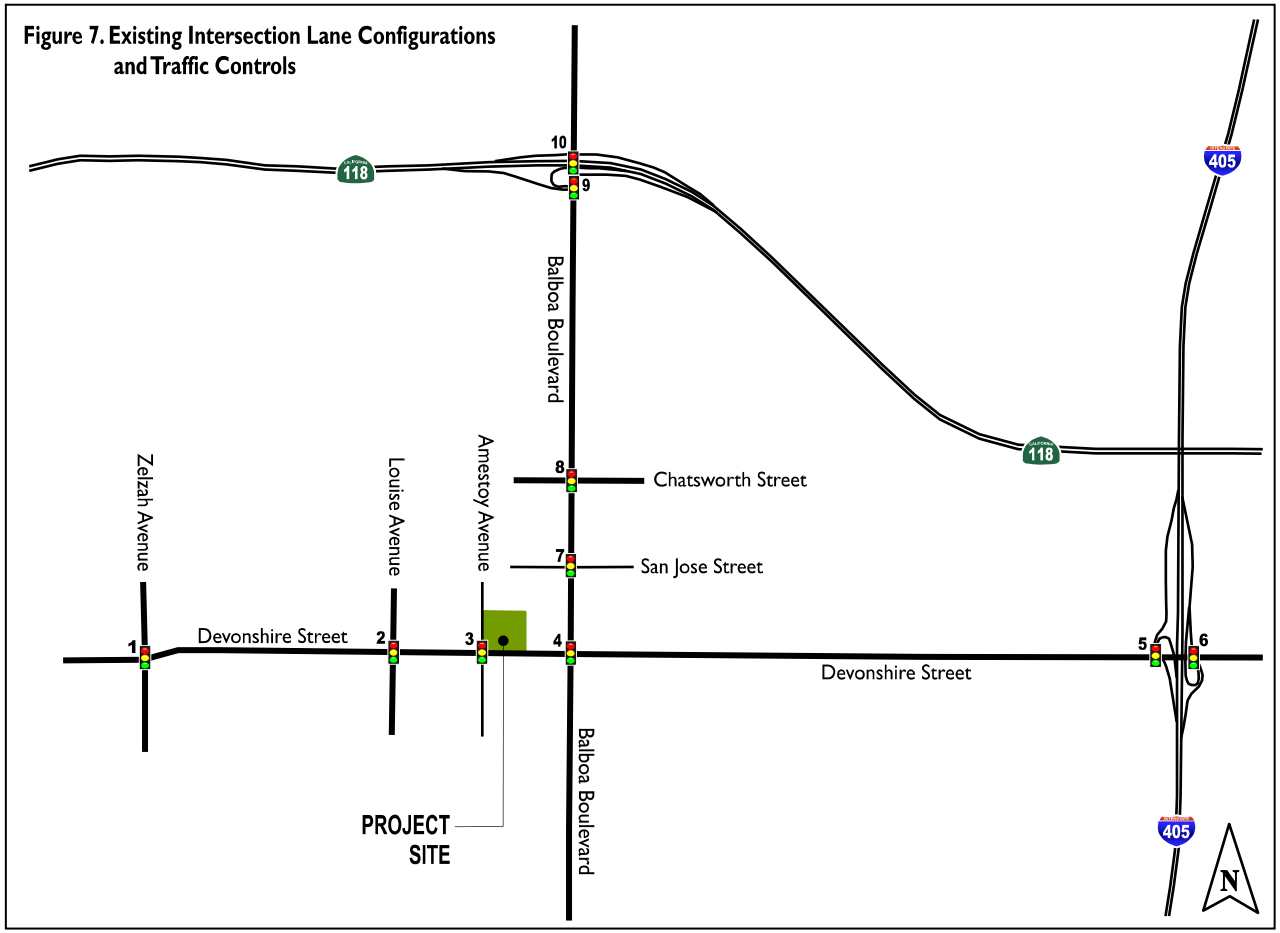
TABLE 5 below summarizes the results of the Existing Year 2018 intersection LOS and volume-to-capacity analysis, conducted using the methodologies described in Section 2.0. As shown in the table below, eight out of the ten study area intersections are operating at acceptable Levels of Service (LOS "D" or better) under the existing (Year 2018) conditions during the weekday AM peak hour, while the remaining two intersections at Devonshire/Balboa and Balboa/SR-118 Westbound Ramps are currently operating at deficient LOS F conditions during the weekday AM peak hour.

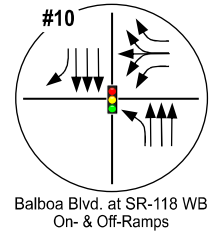
Figure 6. Community Plan Area Circulation Map



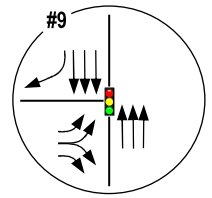
Source: City of Los Angeles Planning Department, May 2013.

Figure 7. Existing Intersection Lane Configurations and Traffic Controls

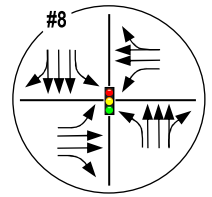




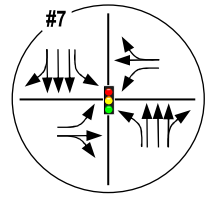
Balboa Blvd. at SR-118 WB On- & Off-Ramps



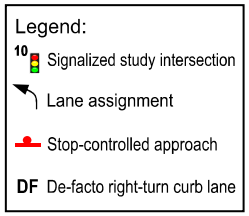
Balboa Blvd. at SR-118 EB On- & Off-Ramps

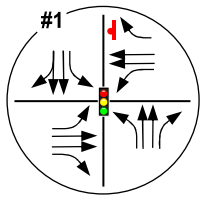


Balboa Blvd. / Chatsworth St.

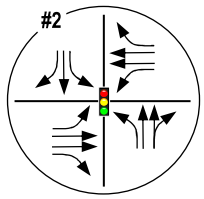


San Jose St. / Balboa Blvd.

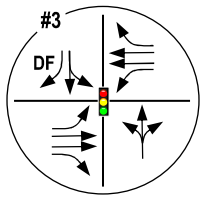




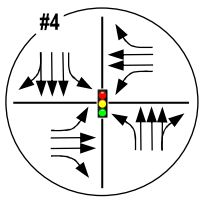
Devonshire St. / Zelzah Ave.



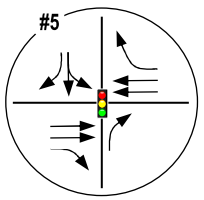
Devonshire St. / Louise Ave.



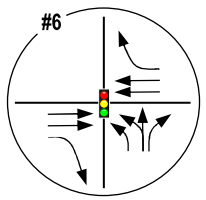
Devonshire St. / Amestoy Ave.



Devonshire St. / Balboa Blvd.

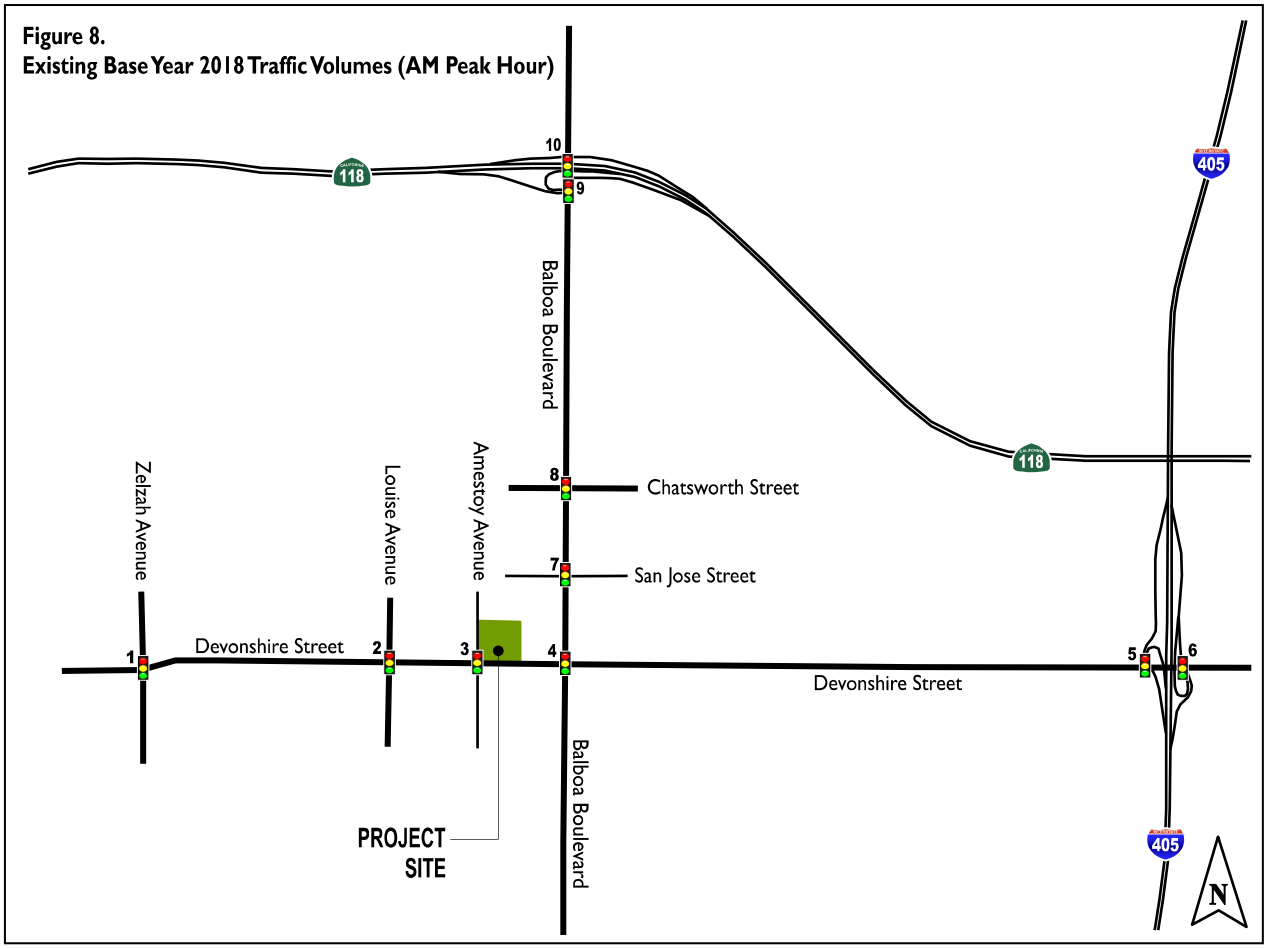


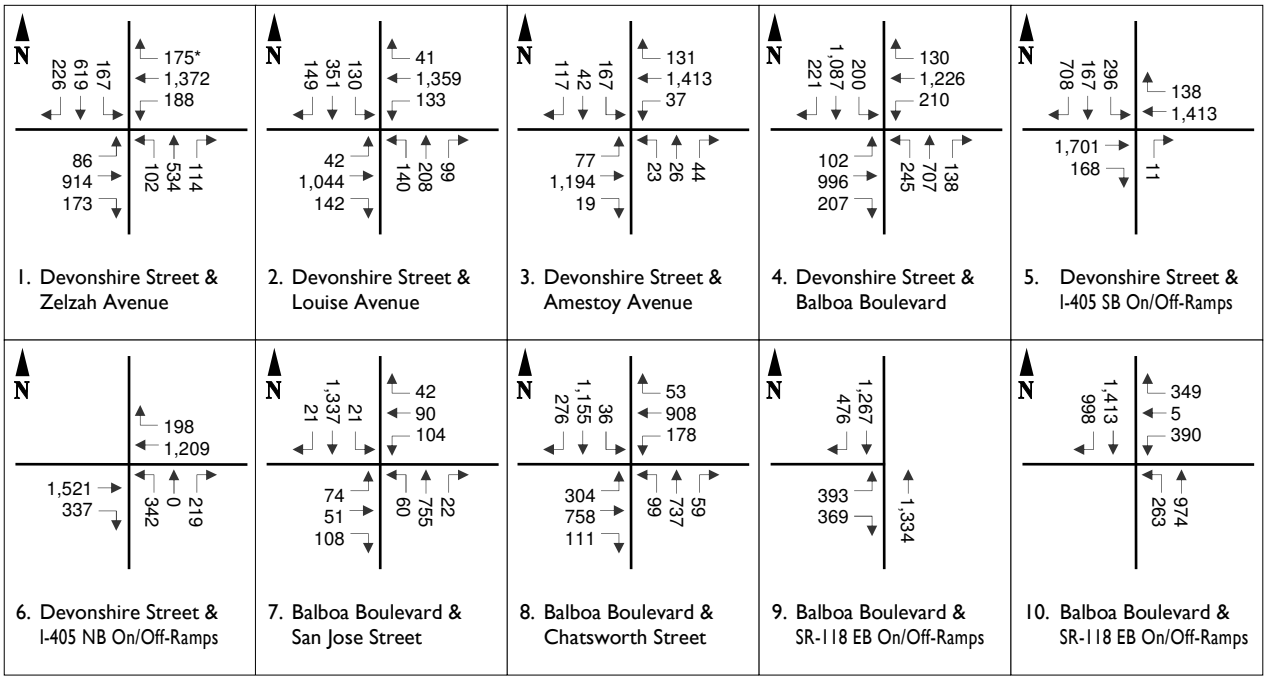
Devonshire St. at I-405 SB On- & Off-Ramps / Blucher Ave.



Devonshire St. at I-405 NB On- & Off-Ramps

Figure 8.
Existing Base Year 2018 Traffic Volumes (AM Peak Hour)





* Turning movement is channelized away from the intersection and not controlled by the traffic signal

The intersection located adjacent to the project site, Devonshire Street at Amestoy Avenue, is currently operating at an acceptable level of service, LOS A, during the critical morning student arrival period.

TABLE 5
Intersection Level of Service
Existing Year (2018) Conditions

Location			AM Peak Hour LOS and V/C Ratio
No.	**Intersection**	**Control**	
1	Devonshire Street at Zelzah Avenue		C 0.765
2	Devonshire Street at Louise Avenue		C 0.709
3	Devonshire Street at Amestoy Avenue		A 0.596
4	Devonshire Street at Balboa Boulevard		F 1.203
5	Devonshire Street at I-405 Southbound On/Off-Ramps		D 0.843
6	Devonshire Street at I-405 Northbound On/Off-Ramps		A 0.553
7	Balboa Boulevard at San Jose Street		A 0.426
8	Balboa Boulevard at Chatsworth Street		D 0.880
9	Balboa Boulevard at SR-118 Eastbound On/Off-Ramps		A 0.366
10	Balboa Boulevard at SR-118 Westbound On/Off-Ramps		F 1.002

4.0 FUTURE (2023) CONDITIONS

This section provides an analysis of Future Year (2023) conditions without the proposed GHCS Project.

4.1 FUTURE YEAR 2023 CUMULATIVE BASE CONDITIONS (WITHOUT PROJECT)

Future Year (2023) Cumulative Base Conditions represent the forecast traffic scenario in the Year 2023 without the GHCS Project, based on the following two primary factors:

(1.) Increases in background traffic shaped by the growth of the existing traffic baseline over a five-year period to the proposed project build-out year. This reflects time-driven increases in socioeconomic aspects such as employment, housing, and population which will subsequently increase the local background traffic near the project site. Based on the existing land uses in the surrounding area, traffic growth assumptions developed by the Southern California Association of Governments (SCAG), and consultation with LADOT, an ambient traffic growth of 1.0 percent (1.01 growth factor, compounded annually) was used to forecast the future baseline conditions using the existing traffic volume data.

(2.) The addition of peak-hour traffic generated by other nearby, related developments expected to be completed and occupied within the same time frame of the proposed GHCS project. LADOT provided Minagar & Associates, Inc. with a list of two area/related projects, obtained from the Planning Department database, which were considered substantial enough to contribute measurable traffic volumes to the study area during the future analysis period.

The related project information included net trip generation defined by the projects' respective traffic studies and environmental review documents, using LADOT's ITE-based weekday AM peak hour trip generation rates to determine the cumulative project traffic volumes. Related project trips were then added to the surrounding street system under the Future Year 2023 condition using distribution and assignment methodologies from the respective projects and land uses.

FIGURE 9 illustrates the locations of the related projects within the study area. **TABLE 6** provides a list, description, address and trip generation for each related project. The total related projects trip assignment forecasts are shown in **FIGURE 10** for the weekday AM peak hour.

Figure 9. Related Projects Locations

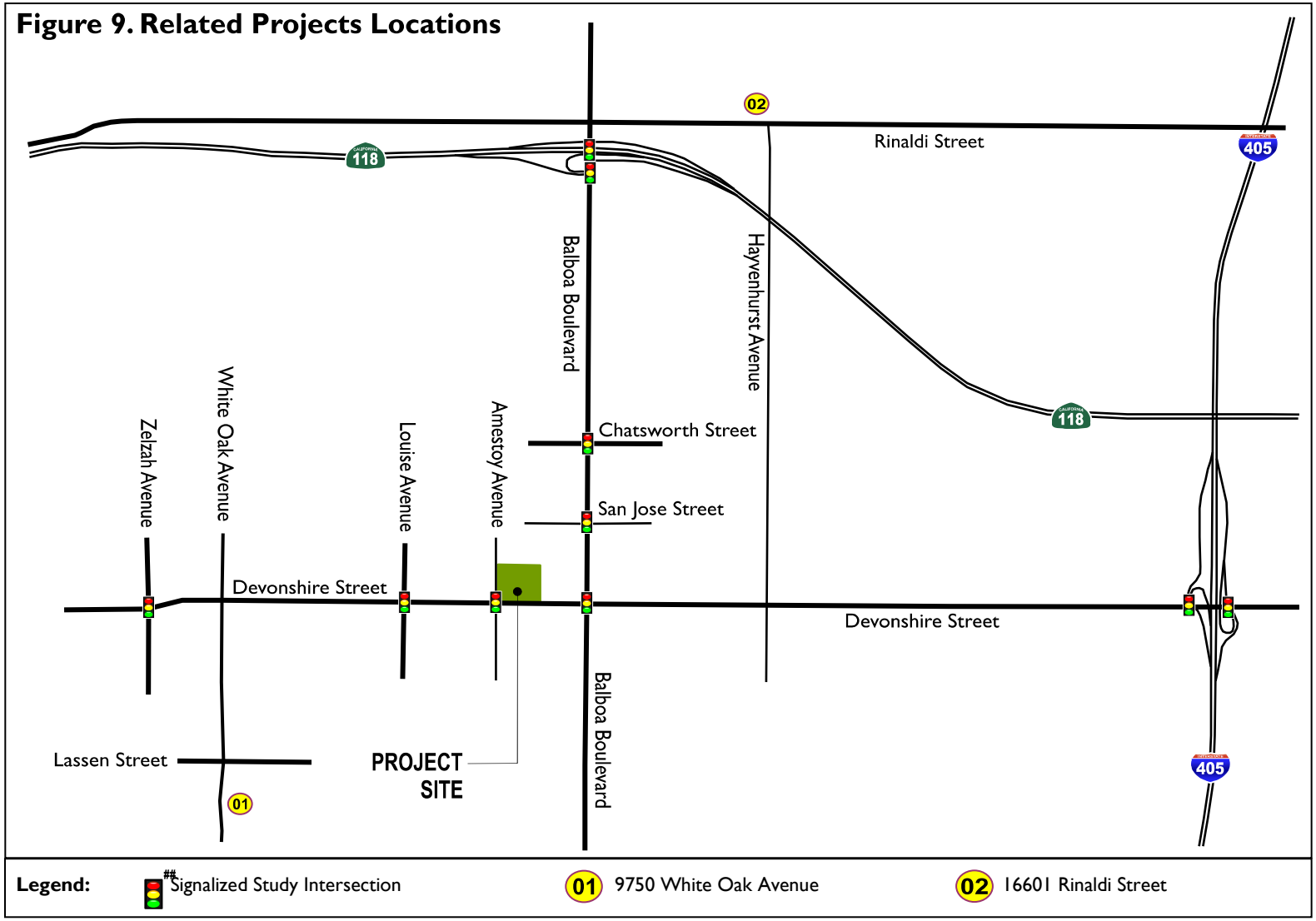
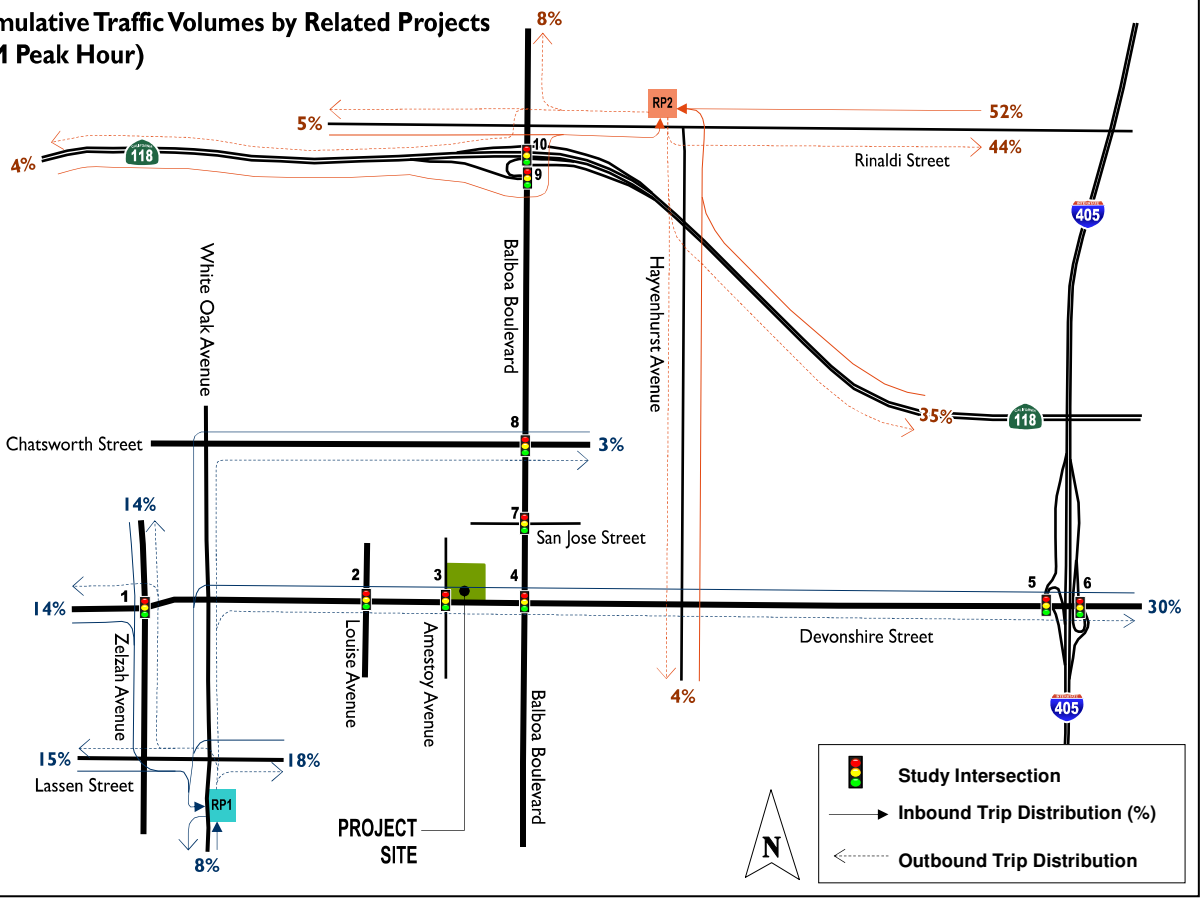
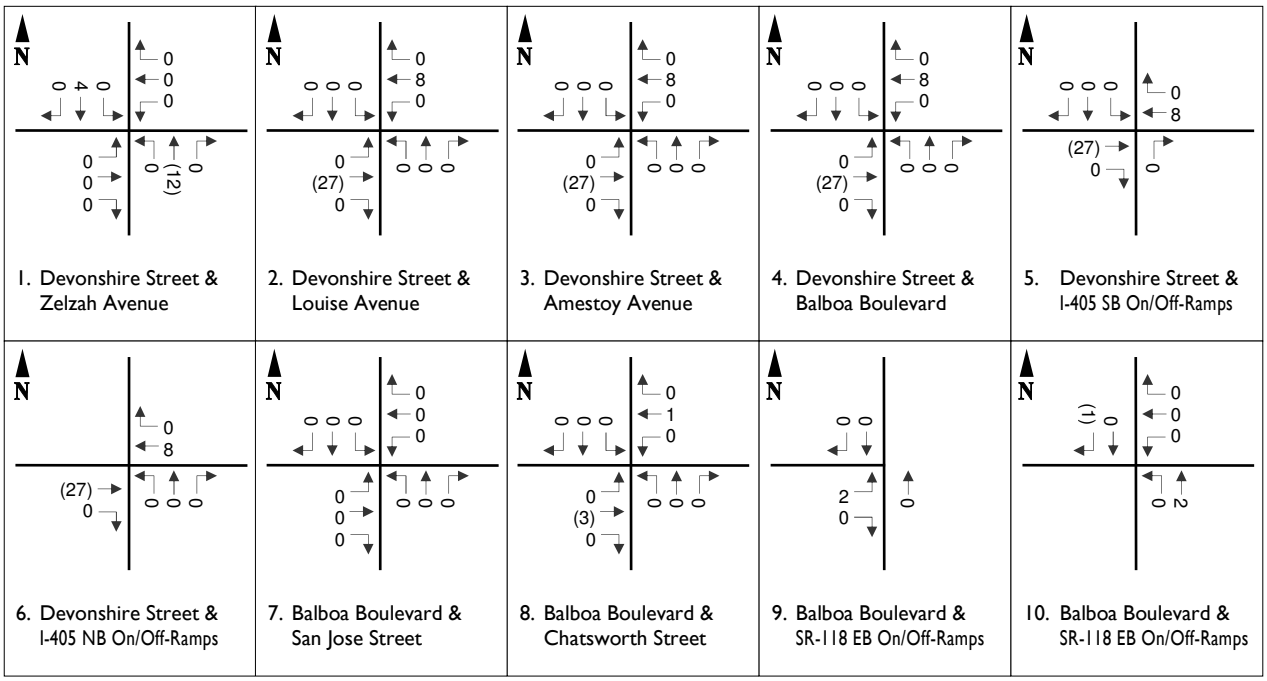


Figure 10.
Cumulative Traffic Volumes by Related Projects (AM Peak Hour)



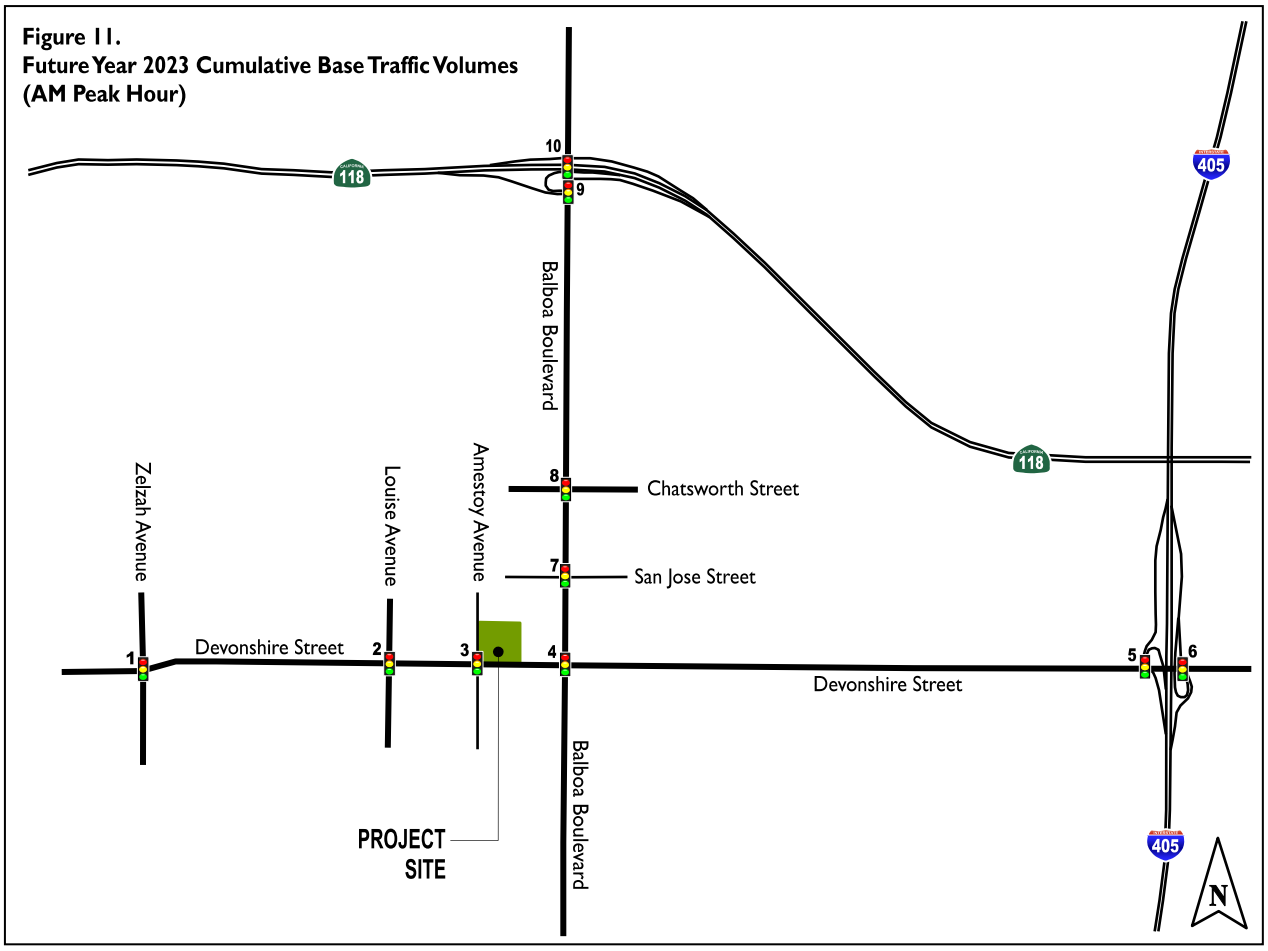


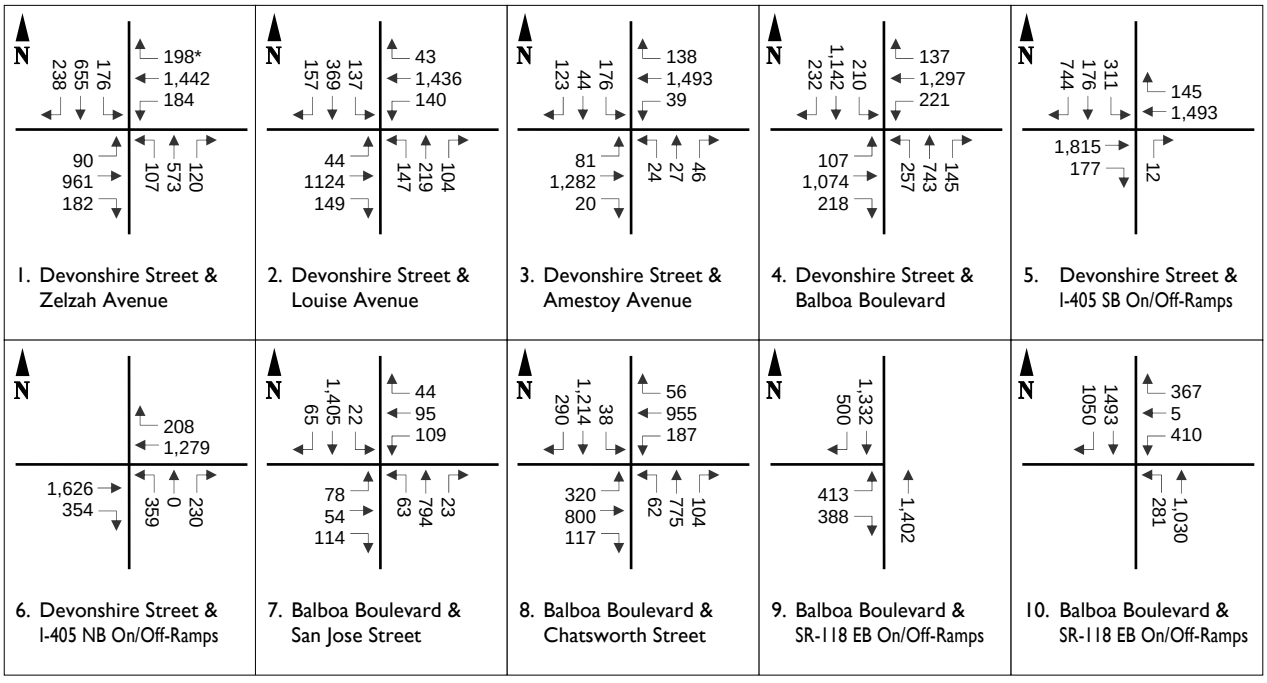
4.1.1 Future Year 2023 Cumulative Base Intersection LOS

FIGURE 11 illustrates the Future Year 2023 Cumulative Base AM peak hour traffic volumes at the ten study intersections. **TABLE 7** summarizes the results of the intersection LOS and V/C analysis for the Future Year (2023) cumulative base conditions, which includes ambient growth between the Years 2018 and 2023, the addition of cumulative development traffic, without the proposed GHCS project traffic.

As shown in Table 7, the study area intersections will continue to operate at their Existing Year 2018 Levels of Service under the Future Year 2023 cumulative (without project) conditions, with the exception of three locations: Devonshire Street at Zelzah Avenue (Intersection #1, LOS "C" to LOS "D"), Devonshire Street at Amestoy Avenue (Intersection #3, LOS "A" to LOS "B") and Balboa Boulevard at Chatsworth Street (Intersection #8, LOS "D" to LOS "E"), where levels of service would with the addition of ambient traffic and cumulative development trips during the AM peak hour.

Figure 11.
Future Year 2023 Cumulative Base Traffic Volumes
(AM Peak Hour)





* Turning movement is channelized away from the intersection and not controlled by the traffic signal

TABLE 6 – Related Projects List

RP No.	Project Name / Description	Location	Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
1	Condominiums Up to 173 condos	9750 White Oak Avenue	Condominiums	137 DU	803	28	89	117	99	59	158
2	Jewish Educational Trade School (JETS) Boarding trade school For 280 students and a 26,153 SF community center	16601 Rinaldi Street	School	280 Students	*745*	*25*	*14*	*39*	*28*	*34*	*62*
			Other	26.153 KSFGFA	*598*	*26*	*16*	*42*	*13*	*30*	*43*
					1,343	51	30	81	41	64	105
				Total	**2,146**	79	119	**198**	140	123	**263**

DU: Dwelling Units
KSFGFA: 1,000 square feet of gross floor area
Sources: Related projects were obtained from LADOT staff, and Trip Generation data were obtained from the City of Los Angeles database.

TABLE 7
Intersection Level of Service
Future Year (2023) Cumulative Base Conditions*

Location			AM Peak Hour LOS and V/C Ratio
No.	**Intersection**	**Control**	
1	Devonshire Street at Zelzah Avenue		D 0.810
2	Devonshire Street at Louise Avenue		C 0.752
3	Devonshire Street at Amestoy Avenue		B 0.634
4	Devonshire Street at Balboa Boulevard		F 1.283
5	Devonshire Street at I-405 Southbound On/Off-Ramps		D 0.839
6	Devonshire Street at I-405 Northbound On/Off-Ramps		A 0.415
7	Balboa Boulevard at San Jose Street		A 0.453
8	Balboa Boulevard at Chatsworth Street		E 0.931
9	Balboa Boulevard at SR-118 Eastbound On/Off-Ramps		A 0.389
10	Balboa Boulevard at SR-118 Westbound On/Off-Ramps		F 1.060

* Includes a five-year, 1% ambient growth per year plus the addition of cumulative projects traffic

5.0 PROJECT CONDITIONS

Project conditions reflect the addition of traffic volumes generated by the GHCS project and distributed to the surrounding street network. Future Year 2023 traffic conditions with the addition of project traffic were estimated and analyzed by adding the project-generated peak hour trip forecasts to the future "Without Project" cumulative traffic volume base. The resulting traffic growth due to the GHCS project was then used to determine the potential for traffic impacts in the surrounding area and study intersections.

5.1 EXISTING (YEAR 2018) PLUS PROJECT CONDITIONS

Existing Plus Project Conditions consider the impact of project traffic on the existing transportation system (Year 2018 base scenario). The proposed project features are summarized below, along with the process of developing project traffic estimates for the "With Project" traffic analysis scenarios.

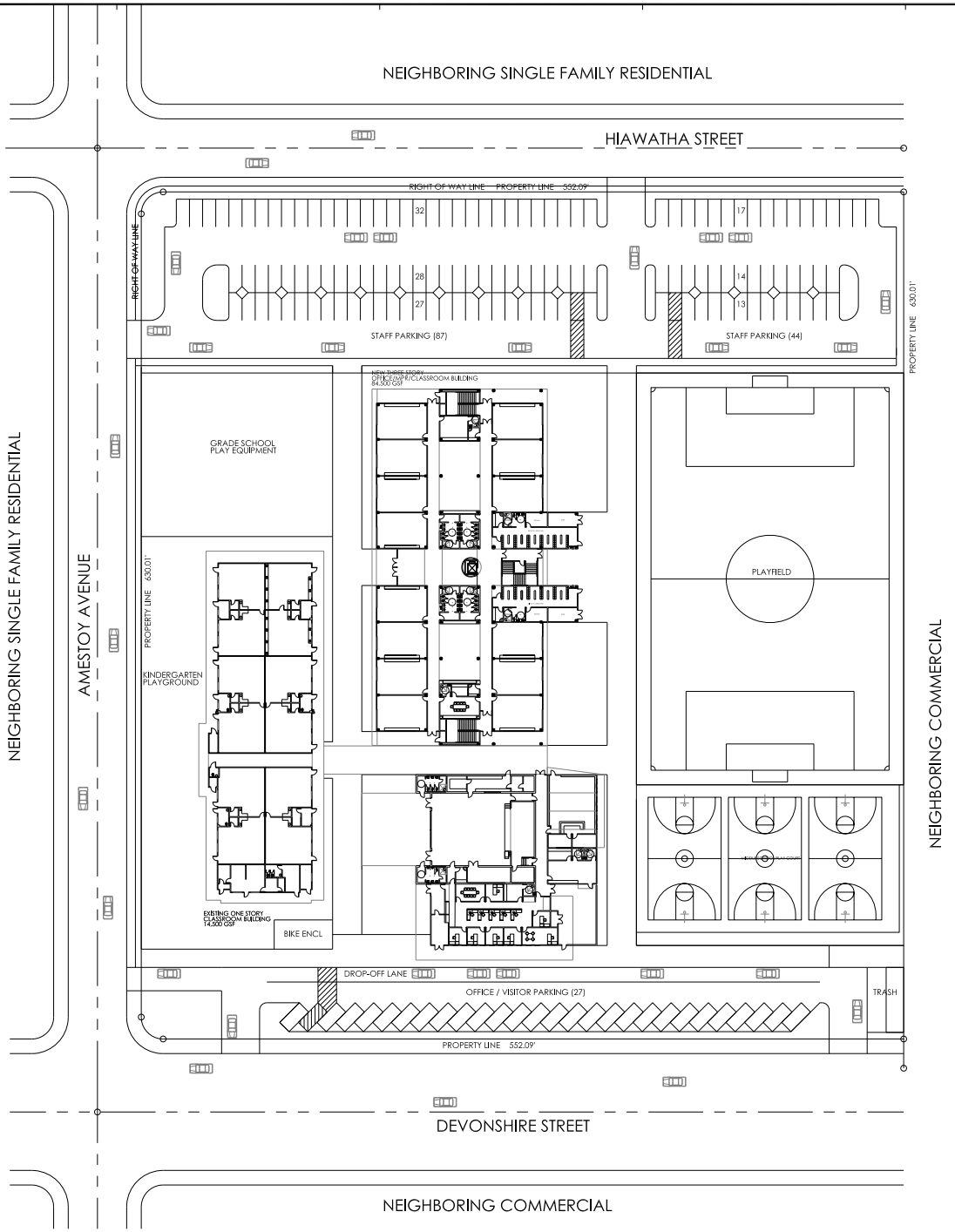
5.1.1 Proposed Project

The project applicant, Granada Hills Charter High School, is proposing to develop a 1,925-student charter school serving Grades TK through 12 at the northeast corner of Devonshire Street and Amestoy Avenue. The proposed TK-12 charter school project will supplant the operations of the existing 400-student private elementary school (Valor Academy) and 360-0student high school (iGranada). Many of the existing students will be retain priority in the new school's enrollment over a phased, 5-year period while the project develops toward its ultimate enrollment capacity. The applicant is seeking an entitlement for a maximum enrollment of up to 1,925 total students, including 75 transitional kindergarten students (4% of total population), 900 elementary school students (47% Grades K-5), 450 middle school students (23% Grades 6-8), and 500 high school students (26% Grades 9-12). The anticipated completion and occupation of the project at maximum enrollment is Fall 2023. The project site plan is shown below on **FIGURE 12.**

5.1.1.1 Access and Circulation

Vehicular access to the student drop-off/pick-up area and office/administration/visitor parking lot area would be provided from two driveways on Devonshire Street, just east of Amestoy Avenue. The north side of the project site along Hiawatha Street, east of Amestoy Avenue, would be enhanced with a new driveway to provide access to the northerly faculty/staff and limited high school student parking lot. Parents dropping off their children in the southerly lot will circulate in a counter clock-wise direction. From Devonshire Street, eastbound drop-off/pick-up traffic accessing the site will proceed past Amestoy Avenue, queue up in the center two-way left turn lane, and enter via the

FIGURE 12
Site Plan



SITE PLAN | 1"=30'-0" | 1 | NOTES

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LICENSED ARCHITECT STATE OF CALIFORNIA

CONSULTANT

NO	DATE	BY	DESCRIPTION
1			REVISIONS

DRAWN:	CHECKED:
DATE:	SCALE:
PROJECT NUMBER: 18-20300	

SITE PLAN

DRAWING NUMBER: A1.1

southeast driveway. Westbound traffic on Devonshire Street will also primarily access the southeast driveway. Outbound traffic will egress the site in a similar fashion as the existing site, with a portion of vehicles using the southwesterly driveway to return onto westbound Devonshire Street, and the remaining traffic exiting the outbound (right-turn only) driveway on Amestoy Avenue. Project egress on Amestoy Avenue will proceed in several directions depending on the intended destination of each driver's return trip, including those which will divert westerly toward Devonshire Street via the residential alley or Hiawatha Street, those which will proceed to the north and then east toward San Jose Street at Balboa Boulevard, and some which may travel north and then U-turn back toward the traffic signal at Devonshire Street and Amestoy Avenue in order to proceed to the east.

In order to improve traffic circulation into and out of the GHCS, the southerly parking lot will provide a uni-directional 400' long curbside lane, with a capacity of about 19 cars, for student loading and unloading purposes. This loading/unloading zone will allow for students to be dropped off and picked up from a single vehicle queuing lane, while providing sufficient lateral width along the left-hand side to allow for passing movements. In order to prevent vehicle spillover onto Devonshire Street, the applicant shall develop a parent drop-off/pick-up plan with educational materials addressing the circulation pattern for this area and proper driver behavior, including the following improvement measures:

a. Parents will be prohibited from dropping off or picking up students along the street-side curb on Devonshire Street, or any other unsupervised areas which could disrupt adjacent traffic flow or public transit;

b. Parents will be encouraged and instructed to pull up to the furthest ahead loading/unloading position within the queue lane, or into a designated visitor parking space if necessary. The school/district will determine as appropriate the need to hire and assign one or more individuals to direct traffic and ensure student safety in the drop-off/pick-up areas, particularly where children are crossing the parking lot and where vehicles are queuing out at the exit driveways. The loading and unloading lane must be properly delineated or coned as necessary to mark the appropriate areas for parents to drop off and pick up their children. Any assigned parking monitors will direct traffic entering the lanes so as to move traffic continuously during the peak arrival/dismissal hours;

c. Parking monitor(s) will direct traffic entering the site to ensure that no blockage occurs on Devonshire Street during school morning arrival and afternoon dismissal hours;

d. The school shall evaluate the need, and implement as necessary, for a system of student workers to help in loading and unloading of students from curbside vehicles;

5.1.1.2 Parking

As shown on the site plan, a cumulative parking supply of 159 spaces will be provided on-site for visitors, office/administration, faculty/staff and high school student parking use. As part of the mitigation plan, a section of on-street parking will be removed on the north side of Devonshire Street and replaced with a Class III (bike route) shared-use bikeway with vehicles. Parents will subsequently be prohibited from using the northerly curb lane on Devonshire Street to drop off or pick up their children at any time.

5.1.1.3 Pedestrian Access

Pedestrian access to the site will continue to be provided via the existing sidewalk system on Devonshire Street and Amestoy Avenue. The applicant shall ensure that pedestrian paths are clearly delineated along the perimeter of the site in order to minimize students cutting through parking lot areas. A student waiting area will be designated alongside the pick-up/drop-off lane to demarcate where students must safely wait to be picked up.

5.1.1.4 Trip Generation

Trip generation estimates for the GHCS project were developed using the trip rates contained in the Institute of Transportation Engineers' (ITE) *Trip Generation, 10th Edition* based on the Elementary School (TK-5), Middle/Junior High School (6-8) and High School (9-12) land use categories, corresponding to ITE Land Use Codes #520, #522 and #530, respectively. The project site currently contains an existing elementary school composed of 400 students grades K-5, and an existing high school composed of 360 students grades 9-12. Trip generation estimates for the existing two uses were calculated and deducted from the gross project trip generation to determine a net project trip generation for the proposed GHCS Project.

The net trip generation for the GHCS K-12 project, adjusted for this assumed credit, results in an estimate of 720 total trips (396 in, 324 out) during the AM peak hour. As part of the project's transportation demand management (TDM) plan, the GHCS in concurrence with the school district has proposed a staggered set of elementary, middle and high school start times, in order to remove a significant portion of trips from the roadway throughout the morning drop-off period to minimize project impacts during the AM hours. This measure would yield a considerable reduction in peak-hour project trips at each intersection.

TABLE 8 provides a summary of the anticipated AM peak hour trip generation for the 1,925-student enrollment.

TABLE 8
Project Trip Generation

TRIP GENERATION RATES [1]			
Proposed Land Use	**AM Peak Hour Rate** Per Seat		
	In	Out	Total
#520: Elementary School	0.36	0.31	0.67
#522: Middle/Junior High School	0.31	0.27	0.58
#530: High School	0.35	0.17	0.52
Existing Land Use	In	Out	Total
#530: High School	0.35	0.17	0.52
#520: Elementary School	0.36	0.31	0.67

TRIP GENERATION / TRIP CREDIT			
Proposed Land Use • *Granada Hills TK-12 Charter School*	**AM Peak Hour Trips**		
	In	Out	Total
975 students – Elementary School (TK-5)	**351**	**302**	**653**
450 students – Middle/Junior High School (6-8)	**140**	**122**	**262**
500 students – High School (9-12)	**175**	**85**	**260**
Credited Land Use • *Valor Academy ES (Grades K-5)* • *iGranada HS (Grades 9-12)*	**AM Peak Hour Trips**		
	In	Out	Total
400 students (Grades K-5)	**-144**	**-124**	**-268**
360 students (Grades 9-12)	**-126**	**-61**	**-187**
NET PROJECT TRIP GENERATION:	**396**	**324**	**720**

[1] Source: Institute of Transportation Engineers (ITE) *Trip Generation*, 10th Ed., as approved for use by LADOT.

5.1.1.5 Trip Distribution

A trip distribution model for the project was developed for the proposed GHCS campus, as shown in **FIGURE 13**. Inbound and outbound distribution patterns were developed based on the location and density of the surrounding residential neighborhoods in Granada Hills, Northridge and Mission Hills, the availability and location of nearby elementary and middle schools, existing LAUSD school boundaries, traffic count volumes collected by Minagar & Associates, Inc. during school season in September 2018, and an analysis of the logical inbound/outbound routes to the GHCS campus site from the existing transportation system.

5.1.1.6 Trip Assignment

Based upon the GHCS Project trip distribution percentages developed in the above section, peak hour and daily project trips were assigned to the surrounding local and regional roadway system. **FIGURE 14** shows the proposed trip assignments at each study intersection.

5.1.2 Intersection LOS

TABLE 9 summarizes the results of the intersection LOS and V/C analysis for the Existing Plus Project conditions. As shown in Table 9, with the addition of AM peak hour project trips, all of the study intersections would continue to operate at their pre-project levels of service, except for the intersection of Devonshire Street at Amestoy, which will degrade from LOS "D" to "E". **FIGURE 15** shows the forecast traffic volumes for the Existing Plus Project conditions.

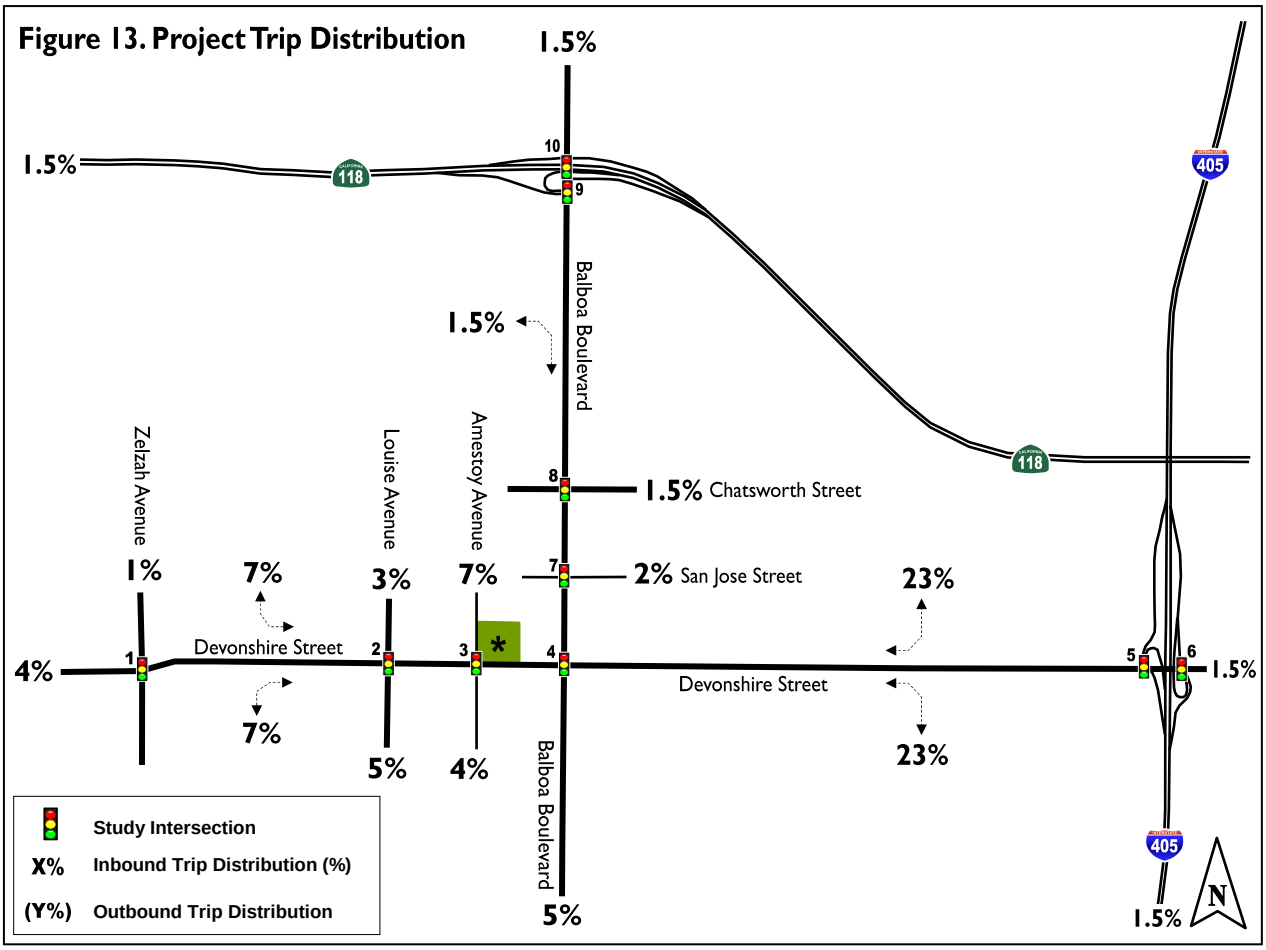
5.2 FUTURE (YEAR 2023) PLUS PROJECT CONDITIONS

Future Plus Project Conditions represent the impact of project traffic on the future cumulative transportation system, inclusive of ambient traffic growth and peak hour traffic generated by nearby related development projects.

5.2.1 Intersection LOS

TABLE 10 summarizes the results of the intersection LOS and V/C analysis for the Future Plus Project conditions. As shown in Table 10, with the addition of AM peak hour project trips to the future cumulative base, all of the study intersections would continue to operate at their pre-project levels of service. **FIGURE 16** shows the forecast traffic volumes for the Future Plus Project conditions.

Figure 13. Project Trip Distribution



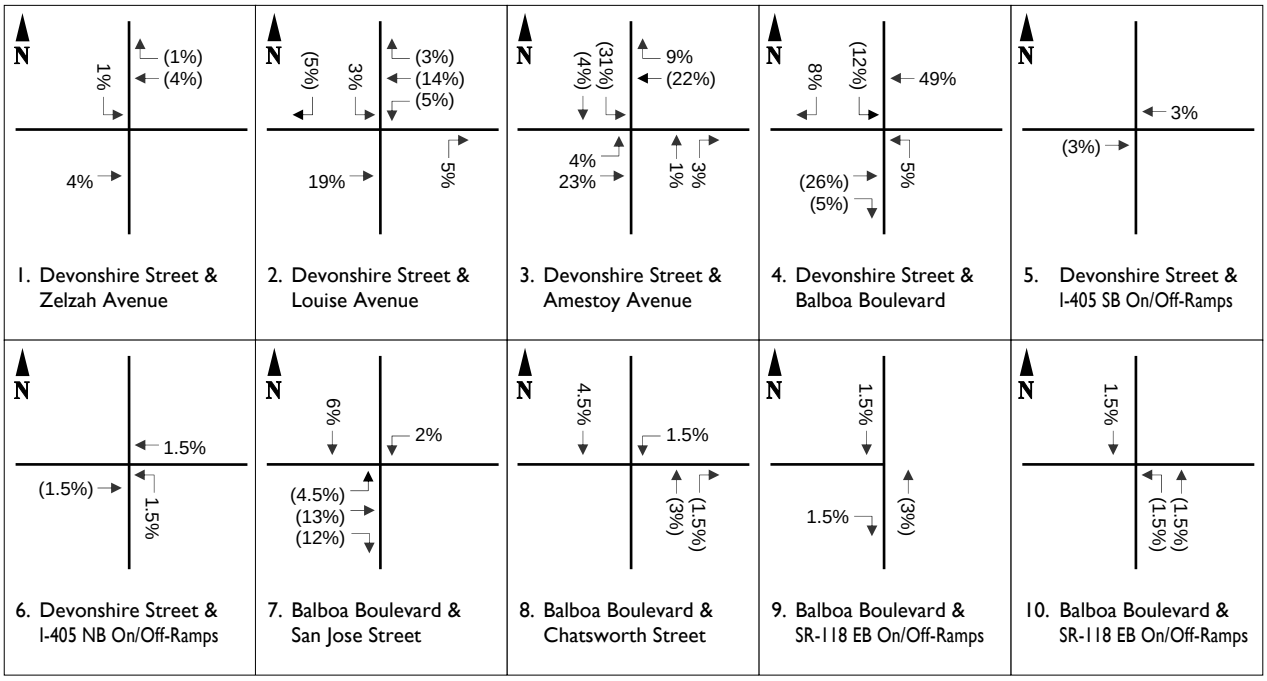
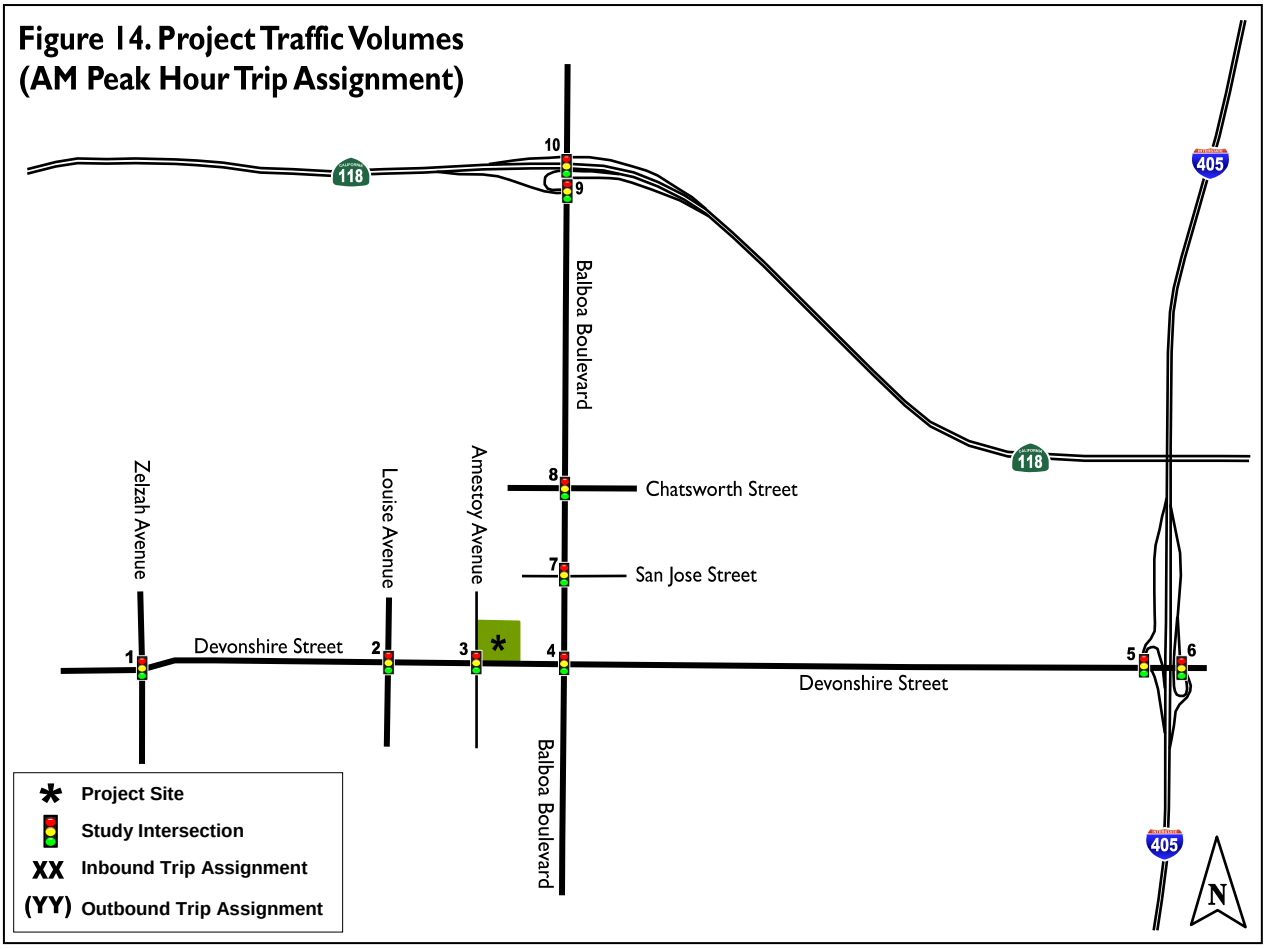


Figure 14. Project Traffic Volumes (AM Peak Hour Trip Assignment)



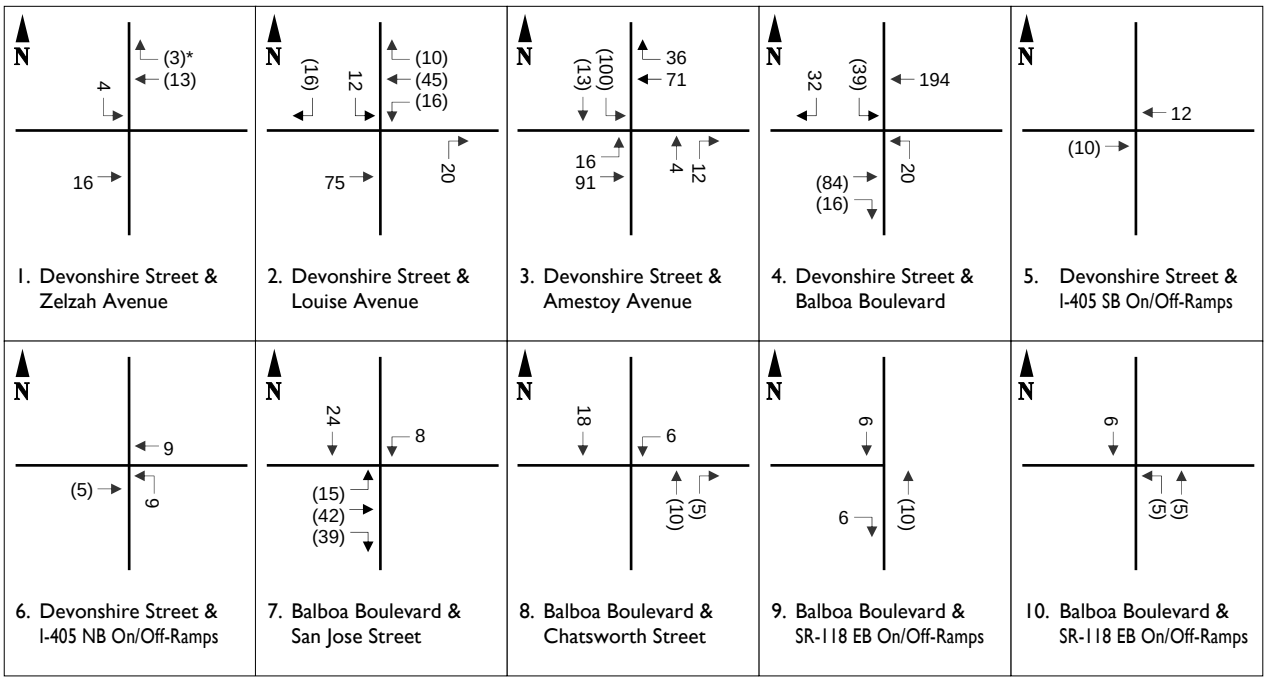
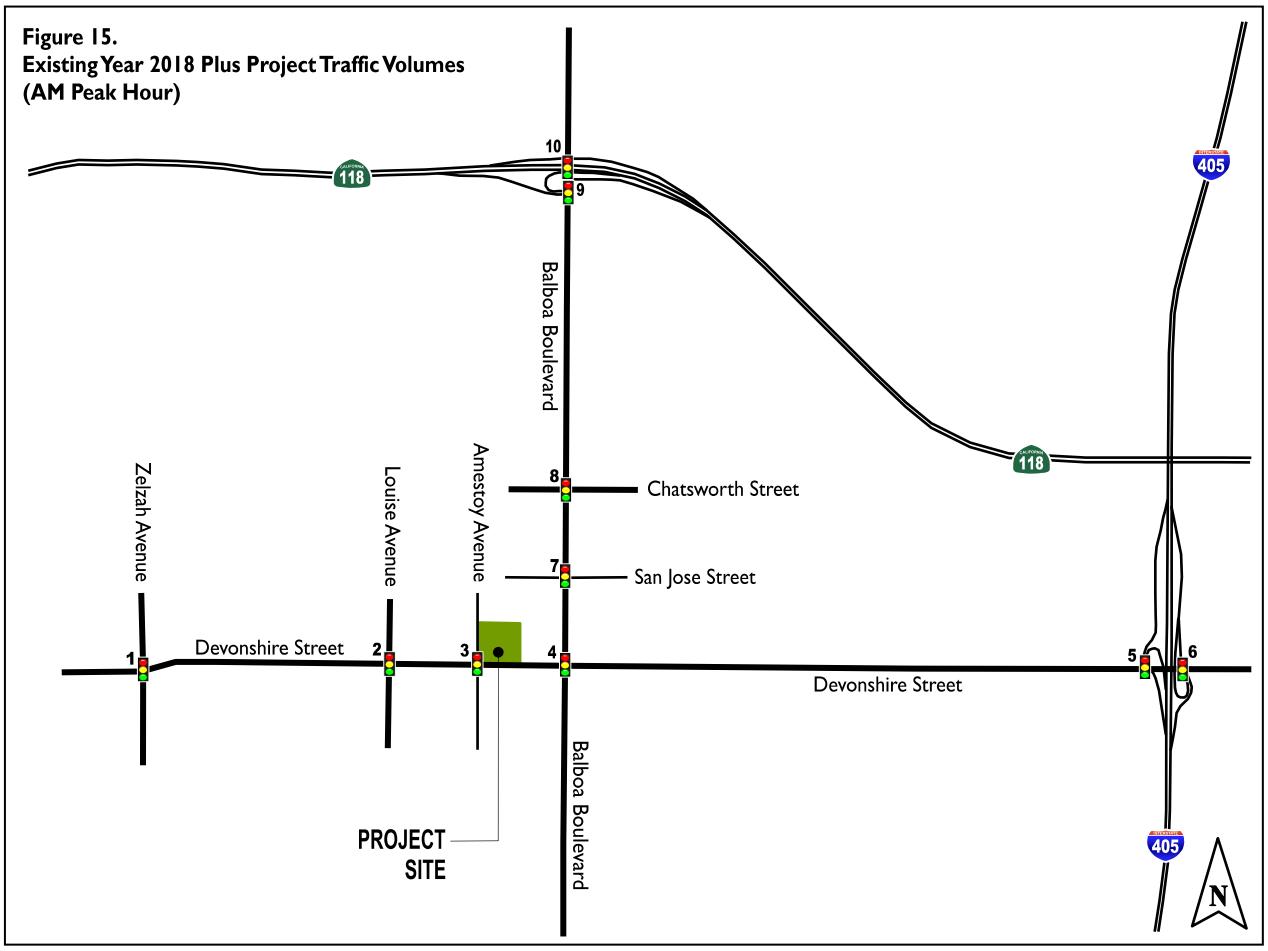
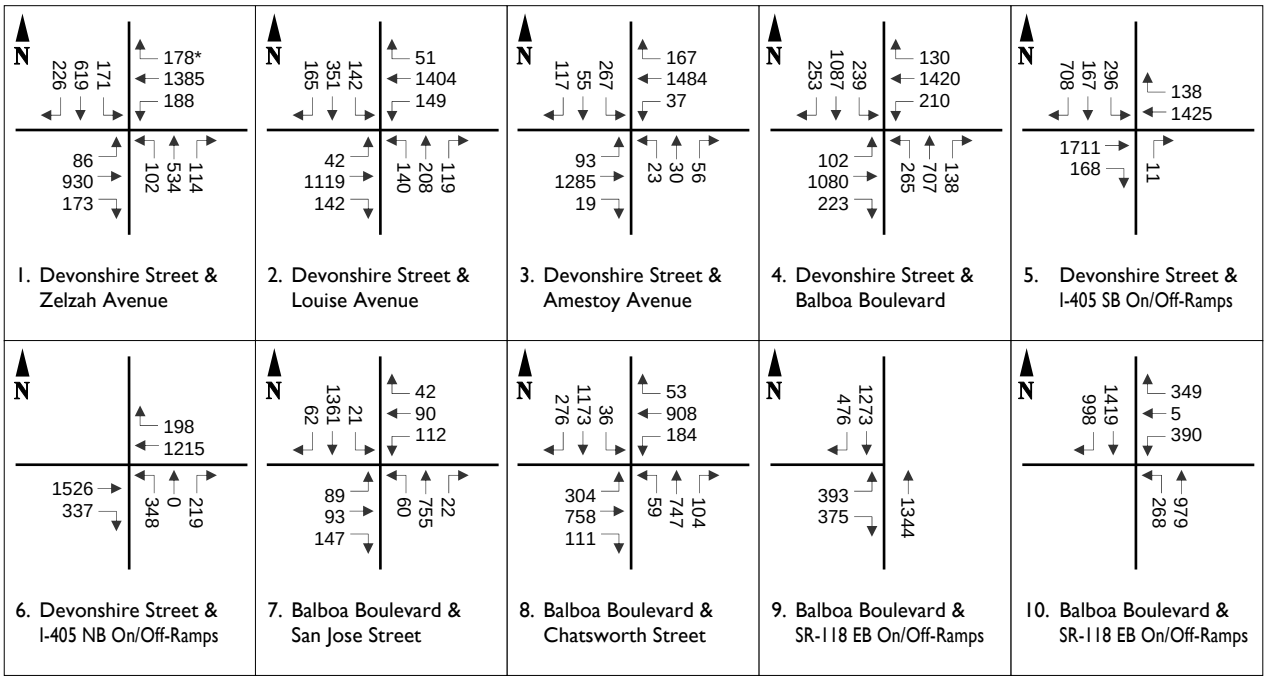


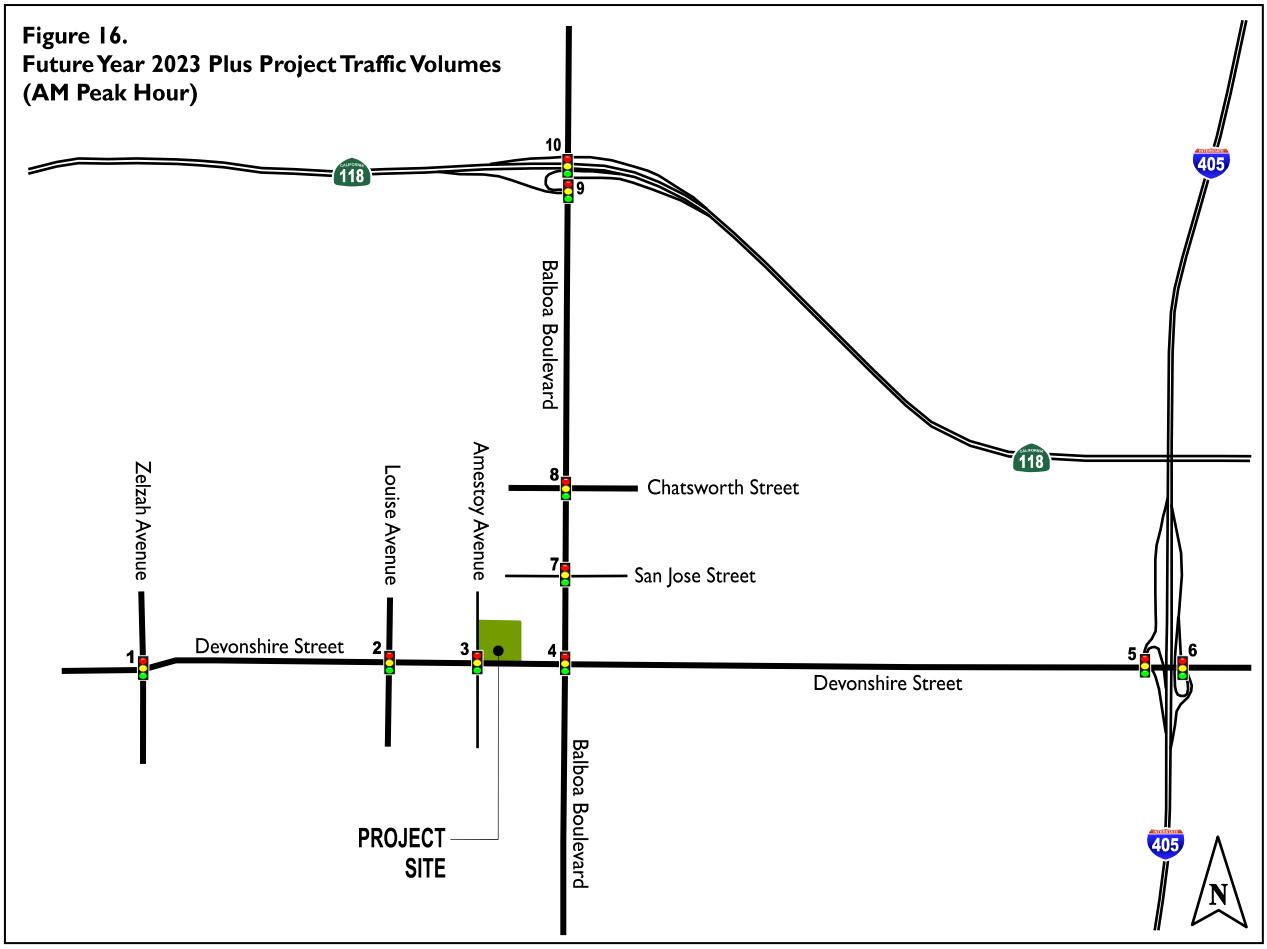
Figure 15.
Existing Year 2018 Plus Project Traffic Volumes
(AM Peak Hour)

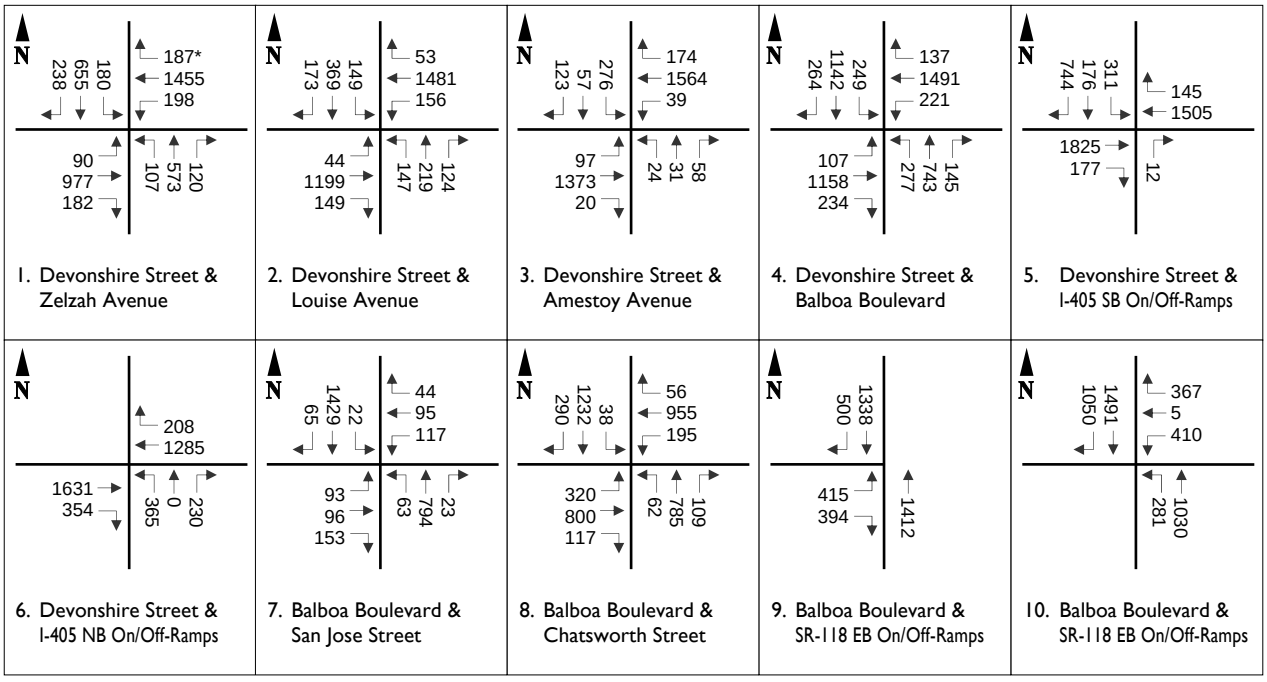




* Turning movement is channelized away from the intersection and not controlled by the traffic signal

Figure 16.
Future Year 2023 Plus Project Traffic Volumes
(AM Peak Hour)





* Turning movement is channelized away from the intersection and not controlled by the traffic signal

TABLE 9
Intersection Level of Service
Existing Plus Project Conditions

Location			AM Peak Hour LOS and V/C Ratio
No.	**Intersection**	**Control**	
1	Devonshire Street at Zelzah Avenue		C 0.769
2	Devonshire Street at Louise Avenue		C 0.723
3	Devonshire Street at Amestoy Avenue		B 0.707
4	Devonshire Street at Balboa Boulevard		F 1.427
5	Devonshire Street at I-405 Southbound On/Off-Ramps		D 0.847
6	Devonshire Street at I-405 Northbound On/Off-Ramps		A 0.555
7	Balboa Boulevard at San Jose Street		A 0.491
8	Balboa Boulevard at Chatsworth Street		D 0.884
9	Balboa Boulevard at SR-118 Eastbound On/Off-Ramps		A 0.370
10	Balboa Boulevard at SR-118 Westbound On/Off-Ramps		F 1.003

TABLE 10
Intersection Level of Service
Future Plus Project Conditions

Location			AM Peak Hour LOS and V/C Ratio
No.	**Intersection**	**Control**	
1	Devonshire Street at Zelzah Avenue		D 0.815
2	Devonshire Street at Louise Avenue		C 0.767
3	Devonshire Street at Amestoy Avenue		C 0.745
4	Devonshire Street at Balboa Boulevard		F 1.506
5	Devonshire Street at I-405 Southbound On/Off-Ramps		D 0.841
6	Devonshire Street at I-405 Northbound On/Off-Ramps		A 0.416
7	Balboa Boulevard at San Jose Street		A 0.518
8	Balboa Boulevard at Chatsworth Street		E 0.935
9	Balboa Boulevard at SR-118 Eastbound On/Off-Ramps		A 0.393
10	Balboa Boulevard at SR-118 Westbound On/Off-Ramps		F 1.061

6.0 SIGNIFICANT IMPACTS ANALYSIS

The circulation and transportation system within the project study area is governed by the regulations and requirements of the City of Los Angeles, the Granada Hills-Knollwood Community Plan, and the County of Los Angeles Congestion Management Program. As such, the determination of impact significance relies on the various thresholds set forth by the appropriate regulating agency(ies). The following section provides an analysis summary of the potential significant traffic impacts for the GHCS Project, including key findings and LOS results of each analysis scenario.

6.1 LADOT IMPACT SIGNIFICANCE

LADOT's impact significance criteria for intersections are based on the incremental sliding scale systems provided in Section 2, and have been used to analyze the potential traffic impacts of the Project's site traffic.

6.1.1 Intersections

TABLE 11 below summarizes the existing and forecast AM peak hour intersection operations for each scenario evaluated in the analysis—including V/C, LOS and incremental change in V/C—and identifies the anticipated significant impacts of the proposed project based on the thresholds in Table 3. Based on these findings, the following two study area intersections would experience a significant traffic impact due to the added vehicular project trips during the AM peak hour:

- Devonshire Street at Amestoy Avenue
- Devonshire Street at Balboa Boulevard

Consequently, the remaining eight study intersections would not experience any significant AM peak hour traffic impacts during the GHCS project opening year of 2023, or under the Existing Plus Project scenario.

TABLE 11
Summary of AM Peak Hour Intersection Operations & Significant Impacts

Study Intersection			AM Peak Hour LOS, V/C Ratio and V/C Change					
			Existing Year 2018			Future Year 2023		
No.	Location	Control	Existing Conditions	Existing Plus Project Conditions	Project Impact	Cumulative Base Conditions	Project Conditions	Project Impact/ Significant?
1	Devonshire Street at Zelzah Avenue		C 0.765	C 0.769	+0.004	D 0.810	D 0.815	+0.005 No
2	Devonshire Street at Louise Avenue		C 0.709	C 0.723	+0.014	C 0.752	C 0.767	+0.020 No
3	**Devonshire Street at Amestoy Avenue**		A 0.596	B 0.707	+0.111	B 0.634	C 0.745	+0.111 – Yes **With Mitigation: +0.036 – No**
4	**Devonshire Street at Balboa Boulevard**		F 1.303	F 1.427	+0.124	F 1.383	F 1.506	+0.123 – Yes **With Mitigation: -0.088 – No**
5	Devonshire Street at I-405 Southbound On/Off-Ramps		D 0.843	D 0.847	+0.004	D 0.839	D 0.841	+0.002 No
6	Devonshire Street at I-405 Northbound On/Off-Ramps		A 0.553	A 0.555	+0.002	A 0.415	A 0.416	+0.001 No
7	Balboa Boulevard at San Jose Street		A 0.426	A 0.491	+0.065	A 0.453	A 0.518	+0.015 No
8	Balboa Boulevard at Chatsworth Street		D 0.880	D 0.884	+0.004	E 0.931	E 0.935	+0.004 No
9	Balboa Boulevard at SR-118 Eastbound On/Off-Ramps		A 0.366	A 0.370	+0.004	A 0.389	A 0.393	+0.004 No
10	Balboa Boulevard at SR-118 Westbound On/Off-Ramps		F 1.002	F 1.003	+0.001	F 1.060	F 1.061	+0.001 No

6.2 CONGESTION MANAGEMENT PROGRAM (CMP) IMPACT SIGNIFICANCE

The Congestion Management Program (CMP) was enacted by Proposition 111 in 1990 to address increasing public concern of traffic congestion impacting the quality of life and economic vitality of the State of California. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program (STIP) process. The Los

Angeles County Metropolitan Transportation Authority (Metro), the local CMP agency, has established a countywide approach to implement the statutory requirements of the CMP in their 2010 CMP for Los Angeles County. The countywide approach includes designating a highway network comprising all state highways and principal arterials within the County and monitoring the network's level of service standards.

Based on Metro's latest CMP for Los Angeles County, a Traffic Impact Assessment (TIA) must be conducted at all CMP intersection monitoring locations where a project would add 50 or more trips during the AM or PM weekday peak hours. A TIA must also be conducted at all CMP mainline freeway monitoring locations where a Project would add 150 or more trips, in either direction, during the AM or PM weekday peak hours.

6.2.1 Intersections

There are no CMP arterial monitoring intersections in the study area.

6.2.2 Roadway Segments

According to CMP Transportation Impact Analysis (TIA) Guidelines, a CMP traffic impact analysis is conducted for projects which are anticipated to add 150 or more trips to freeway facilities and the monitoring facility during the AM or PM peak hours. The SR-118 freeway is the nearest CMP-designated facility to the project site, located approximately 1.5 miles to the north with a major interchange at Balboa Boulevard. Project traffic will be generated during the peak hours of the day within typical school hours, and will originate predominantly from local neighborhoods and residential zones. Based on the requirements of the latest Los Angeles County Congestion Management Program (2010 CMP), the GHCS Project would not generate an excess of 150 directional trips onto the CMP network. Given the less-than-significant project impact on the County's CMP system, a detailed CMP freeway segment analysis is thus not required.

7.0 MITIGATION RECOMMENDATIONS

7.1 PROJECT MITIGATION PLAN

Based on the above traffic analyses, the proposed GHCS Project is forecast to add a total of 989 AM peak hour trips (617 inbound, 372 outbound) on the surrounding roadway circulation system. The results of the intersection LOS and impact analysis reveal that two of the ten study intersections will experience significant traffic impacts due to the added vehicular trips to the adjacent roadways during the AM peak hour. In order to maintain a less-than-significant impact, the following mitigation measures are proposed:

- Implement a staggered bell schedule to offset elementary, middle and high school student arrival times to minimize the impact of morning school trips on the adjacent street network, including the following hours:
    - 6:45AM – 7:25AM, High School
    - 7:15AM – 7:45AM, Middle School
    - 7:45AM – 8:15AM, TK and Elementary School

FIGURE 17 illustrates the estimated project trip reduction during the morning drop-off hours due to the staggering of elementary, middle and high school grade bell schedules. The individual arrival patterns for each grade group were modeled after the existing AM period traffic volume arrivals measured on Devonshire Street at Amestoy Avenue and Balboa Boulevard near the existing school.

- Implement a 40-space, fixed-cap parking program for high school students to effectively reduce the number of single-auto trips generated by high school students of driving age;

- Implement a formal campus-wide rideshare program to connect parents and students from families living in the same area, who are otherwise not included in either a multiple-child program (i.e., traveling in single-family vehicles) or driving to school in their own car;

- Provide 241 bicycle racks and miscellaneous storage lockers to encourage alternative travel to and from the school, and develop a comprehensive on-site education program to incentivize all varieties of non-motorized travel modes, including walking, skateboarding, and scooters; and

- Implement a Tow Away No Stopping zone on the north side of Devonshire Street between Amestoy Avenue and Balboa Boulevard to prohibit on-street parking between the hours of at least 7:00am and 9:00am along this side of the street during the school week (i.e., Monday through Friday, holidays excluded). In order to maximize safety and eliminate student blocking views during school hours, an all-day parking restriction between the hours of 7:00am and 5:00pm is proposed for this measure for LADOT's

subsequent review and approval in consideration of established warrants and standards for feasibility, as well as input from elected officials and other stakeholders for viability.

In any case, the on-street parking restriction will cover school days during the critical drop-off period analyzed in this transportation study from 7:00am to 8:00am, and would remain valid in allowing school-destined ingress on Devonshire Street to use the wide north curb lane as a de-facto right turn lane during the critical school drop-off hours. In terms of mitigation, the measure would relieve westbound Devonshire Street of queueing and friction and improve the overall safety along the segment, the benefits of which have been applied as mitigations to Intersection #4 (Devonshire/Balboa) by calculating the ratio of the project's ingress volume to the cumulative volume of project plus adjacent curb lane traffic. Therefore, the temporary restriction of north curb lane parking during the school's proposed AM drop-off period would reduce the side friction associated with the on-street parking, taken as a 10% maximum friction reduction (i.e., capacity increase), at the upstream traffic signal at Devonshire Street and Balboa Boulevard.

- Provide for safe crossing conditions on-site with appropriate signage, markings and/or crossing guards where concentrated travel paths of students and staff/faculty exist or are expected, such as in the vicinity of Devonshire Street and Amestoy Avenue, and other busy intersections as deemed appropriate.

- Arrange an agreement with LADOT to conduct a focused re-assessment/monitoring of peak hour traffic conditions prior to any future expansion of the GHCS' K-12 student enrollment.

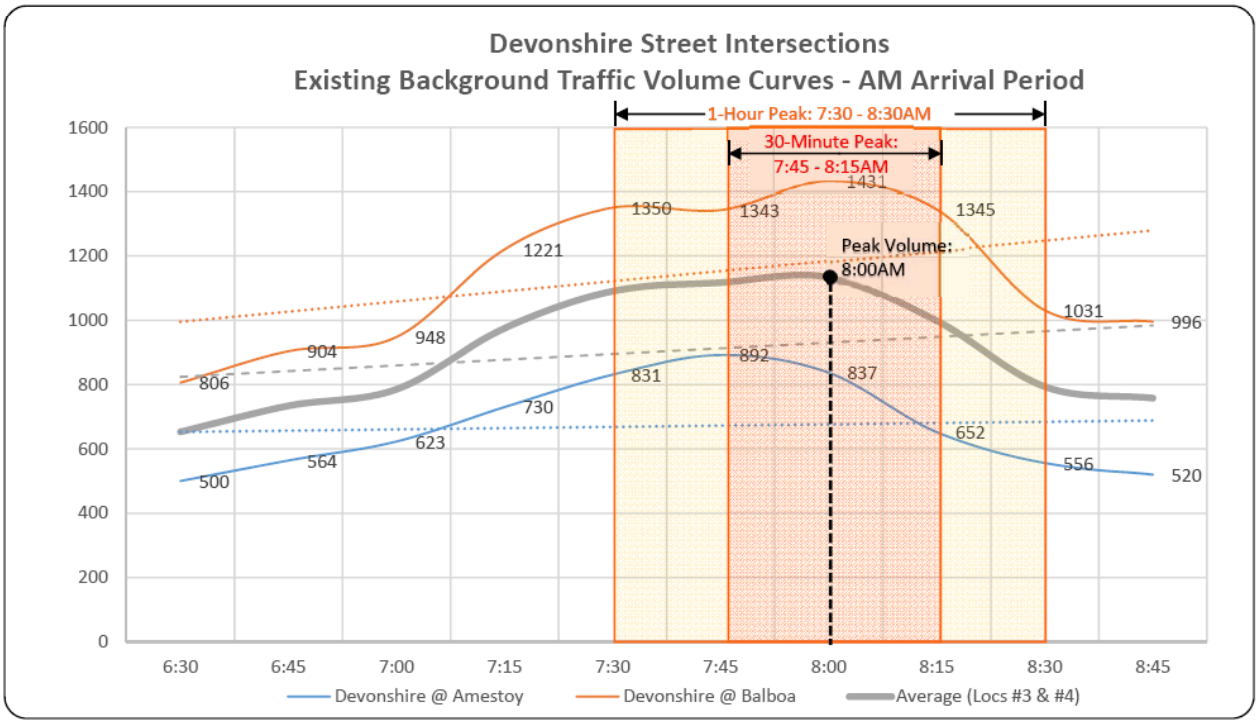
Figure 17
Trip Generation Reduction due to Staggered School Bell Schedule TDM Measures (Modeled after Existing AM Peak Hour Traffic Arrival Patterns)

Staggered Student Arrival Trips In/Out, by school group (normal distribution)

Time	6:30	6:45	7:00	7:15	7:30	7:45	8:00	8:15	8:30	8:45
Grade School Group	500 stu	89 HS (6:45 - 7:25AM)	91	80						
			450 stu	130 MS (7:15 - 7:45AM)	132					
					975 stu	324 ES (7:45 - 8:15AM)	329			
15-Min. Totals	0	89	91	210	132	324	329	0	0	0
Hourly Totals		89	301		456		329		0	
		180		342		653		0		

15-minute Intersection Approach Volume Totals (distribution of existing background traffic arrivals)

Location #3 (Devonshire Street at Amestoy Avenue)										
v_{15}	500	564	623	730	831	892	837	652	556	520
Location #4 (Devonshire Street at Balboa Boulevard)										
v_{15}	806	904	948	1221	1350	1343	1431	1345	1031	996
Average of Locations #3 and #4										
v_{15}	653	734	786	976	1,091	1,118	1,134	999	794	758



INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: Zelzah
EAST & WEST: Devonshire

PROJECT #: SC1880
LOCATION #: 1
CONTROL: SIGNAL

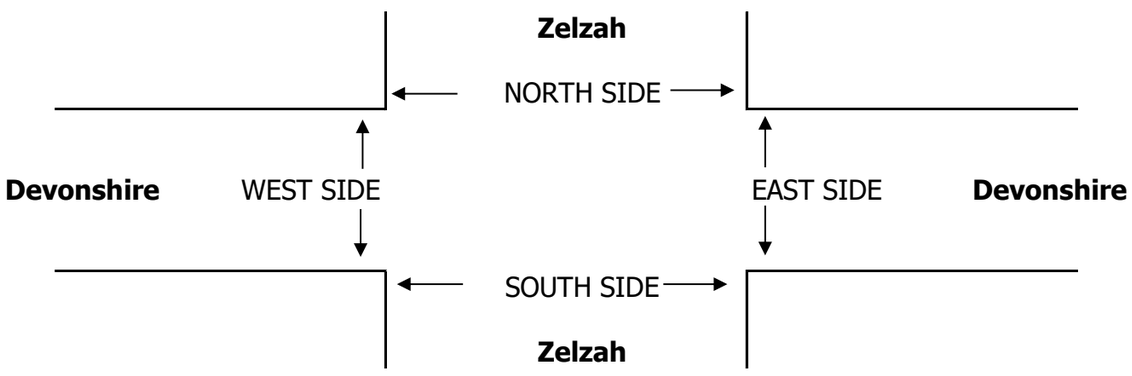
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W
E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Zelzah			SOUTHBOUND Zelzah			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	32	131	16	53	128	61	29	135	26	43	223	43	920	0	0	0	0	0
	7:15 AM	23	115	27	57	198	84	18	176	36	55	291	44	1,124	0	0	0	0	0
	7:30 AM	25	128	36	37	160	26	13	240	44	54	322	20	1,105	0	0	0	0	0
	7:45 AM	26	108	35	48	143	48	25	248	39	49	344	44	1,157	0	0	0	0	0
	8:00 AM	30	183	26	37	151	80	25	221	45	43	350	66	1,257	0	0	0	0	0
	8:15 AM	21	115	17	45	165	72	23	205	45	42	356	45	1,151	0	0	0	0	0
	8:30 AM	20	52	25	20	86	25	13	143	35	54	243	12	728	0	0	0	0	0
	8:45 AM	24	62	16	15	98	18	13	157	36	46	251	16	752	0	0	0	0	0
	VOLUMES	201	894	198	312	1,129	414	159	1,525	306	386	2,380	290	8,194	0	0	0	0	0
	APPROACH %	16%	69%	15%	17%	61%	22%	8%	77%	15%	13%	78%	9%						
	APP/DEPART	1,293	/	1,343	1,855	/	1,821	1,990	/	2,035	3,056	/	2,995	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	102	534	114	167	619	226	86	914	173	188	1,372	175	4,670					
	APPROACH %	14%	71%	15%	17%	61%	22%	7%	78%	15%	11%	79%	10%						
	PEAK HR FACTOR		0.785			0.897			0.940			0.945		0.929					
	APP/DEPART	750	/	795	1,012	/	980	1,173	/	1,195	1,735	/	1,700	0					
PM	4:00 PM	36	147	36	35	109	40	26	345	38	22	175	33	1,042	0	0	0	0	0
	4:15 PM	35	159	23	31	117	38	39	298	35	16	189	32	1,012	0	0	0	0	0
	4:30 PM	44	145	30	46	130	37	39	308	43	21	198	38	1,079	0	0	0	0	0
	4:45 PM	37	177	43	33	134	45	32	291	38	28	201	41	1,100	0	0	0	0	0
	5:00 PM	36	158	44	34	129	35	36	344	43	24	189	34	1,106	0	0	0	0	0
	5:15 PM	47	151	38	27	100	41	39	379	27	18	244	40	1,151	0	0	0	0	0
	5:30 PM	31	163	45	36	114	32	33	341	35	23	228	28	1,109	0	0	0	0	0
	5:45 PM	38	131	26	22	106	40	40	336	33	22	233	44	1,071	0	0	0	0	0
	VOLUMES	304	1,231	285	264	939	308	284	2,642	292	174	1,657	290	8,670	0	0	0	0	0
	APPROACH %	17%	68%	16%	17%	62%	20%	9%	82%	9%	8%	78%	14%						
	APP/DEPART	1,820	/	1,805	1,511	/	1,405	3,218	/	3,191	2,121	/	2,269	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	151	649	170	130	477	153	140	1,355	143	93	862	143	4,466					
	APPROACH %	16%	67%	18%	17%	63%	20%	9%	83%	9%	8%	79%	13%						
	PEAK HR FACTOR		0.944			0.896			0.920			0.909		0.970					
	APP/DEPART	970	/	932	760	/	713	1,638	/	1,655	1,098	/	1,166	0					



		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	2	5	2	9	18
	7:15 AM	19	12	5	14	50
	7:30 AM	14	2	4	8	28
	7:45 AM	19	2	7	10	38
	8:00 AM	22	10	11	17	60
	8:15 AM	4	7	4	11	26
	8:30 AM	5	1	1	2	9
	8:45 AM	2	1	1	1	5
	TOTAL	87	40	35	72	234
	AM BEGIN PEAK HR	7:30 AM				
PM	4:00 PM	3	4	3	7	17
	4:15 PM	6	6	3	6	21
	4:30 PM	10	3	5	12	30
	4:45 PM	4	1	3	13	21
	5:00 PM	2	3	2	11	18
	5:15 PM	8	5	1	3	17
	5:30 PM	4	5	6	7	22
	5:45 PM	2	1	0	6	9
	TOTAL	39	28	23	65	155
	PM BEGIN PEAK HR	4:45 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
2	3	2	8	15
16	11	5	12	44
6	2	4	7	19
17	1	7	9	34
20	8	9	16	53
4	7	4	9	24
5	1	1	2	9
1	1	1	1	4
71	34	33	64	202
47	18	24	41	130
3	3	3	6	15
5	4	3	5	17
8	3	4	11	26
3	1	2	12	18
2	1	0	7	10
8	1	1	2	12
1	3	4	6	14
2	1	0	5	8
32	17	17	54	120
14	6	7	27	54

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	2	0	1	3
3	1	0	2	6
8	0	0	1	9
2	1	0	1	4
2	2	2	1	7
0	0	0	2	2
0	0	0	0	0
1	0	0	0	1
16	6	2	8	32
0	1	0	1	2
1	2	0	1	4
2	0	1	1	4
1	0	1	1	3
0	2	2	4	8
0	4	0	1	5
3	2	2	1	8
0	0	0	1	1
7	11	6	11	35

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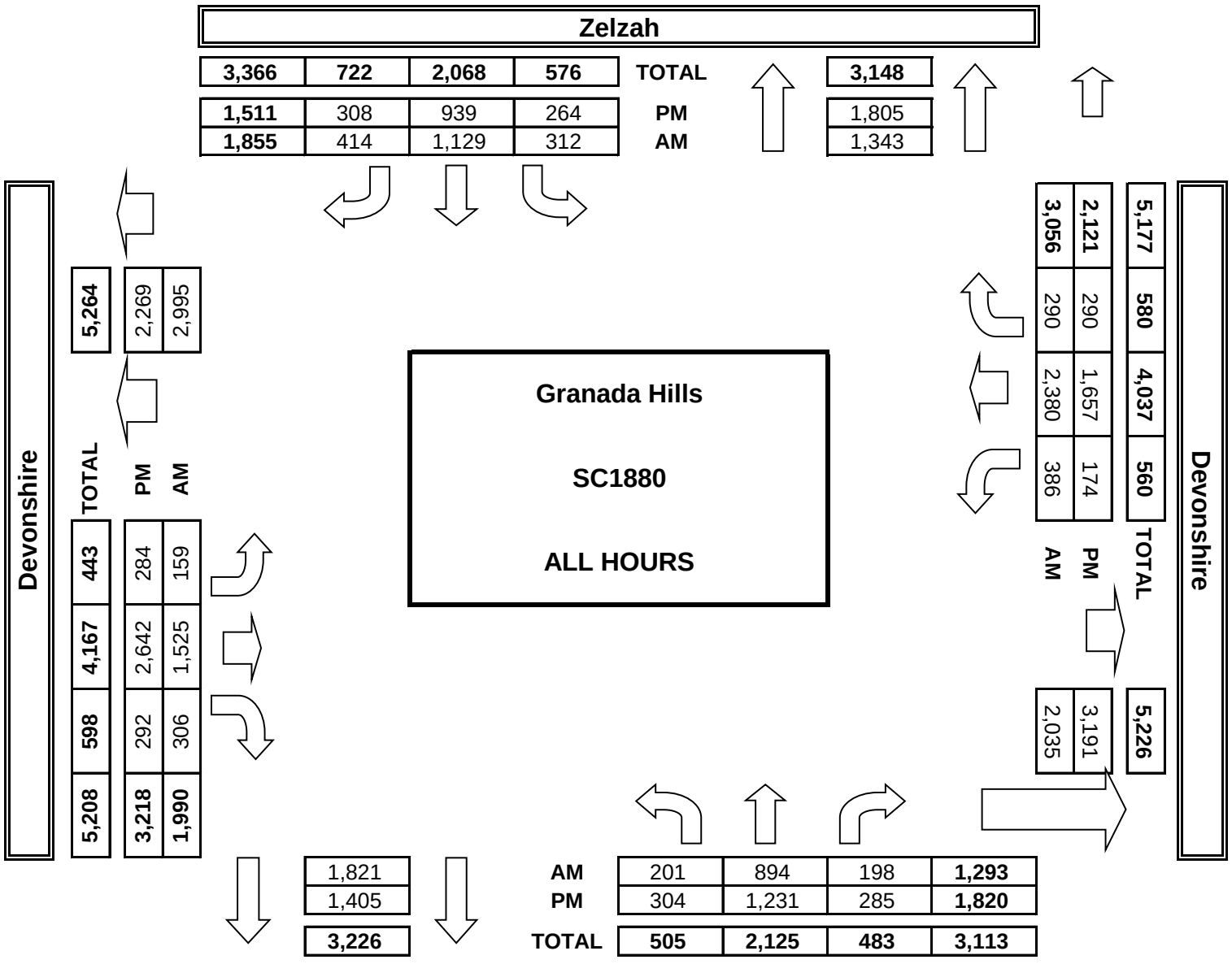
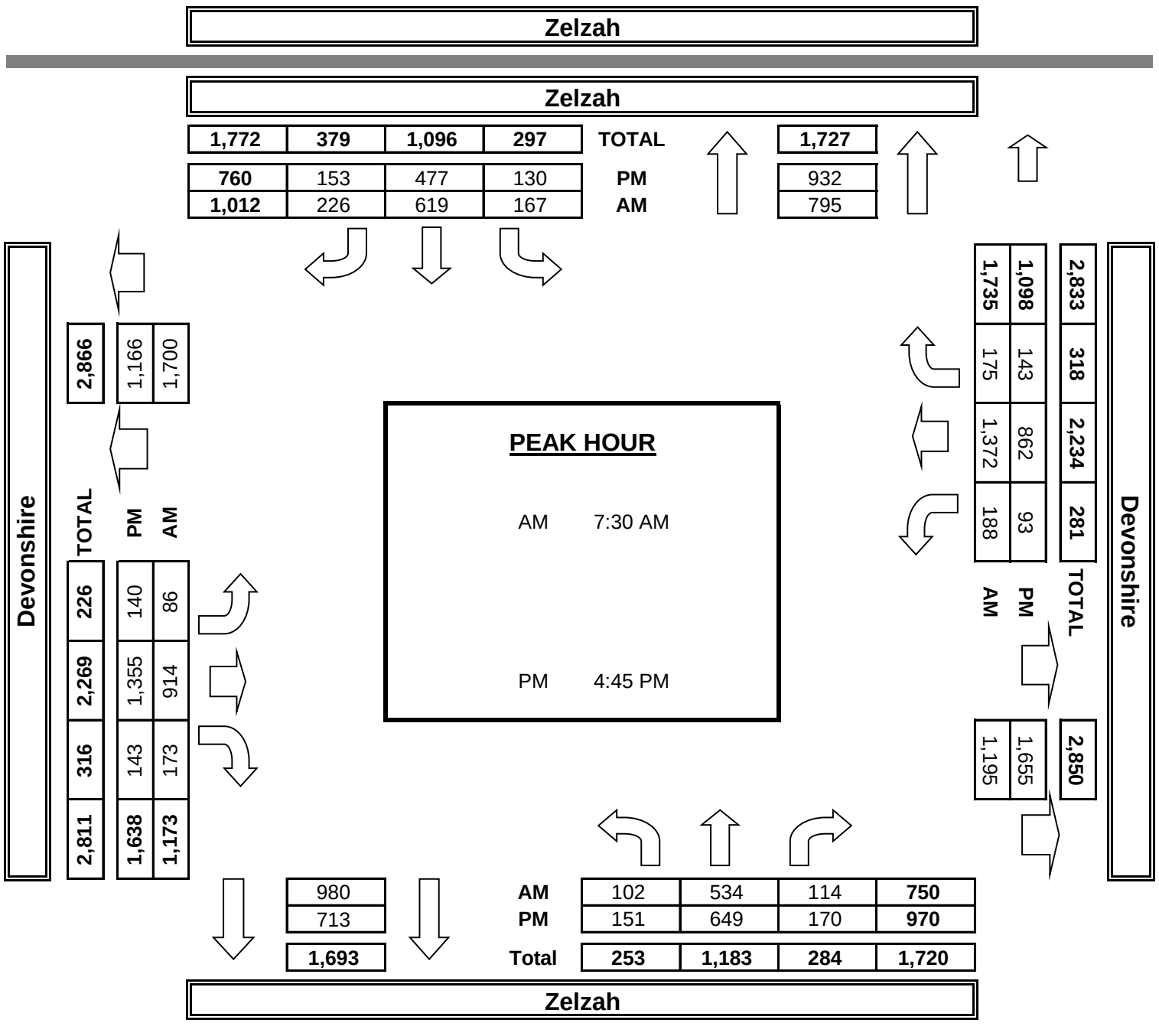
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: Louise
EAST & WEST: Devonshire

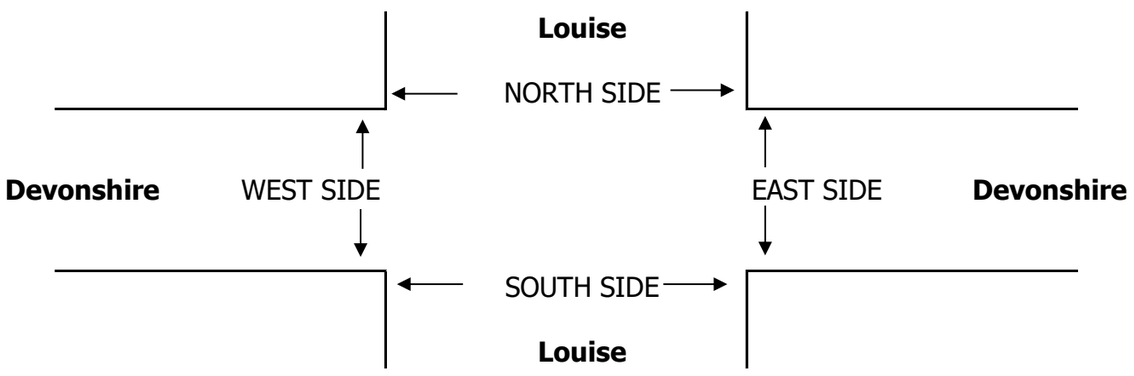
PROJECT #: SC1880
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Louise			SOUTHBOUND Louise			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	32	27	20	28	49	23	8	209	13	13	318	15	755	0	0	0	0	0
	7:15 AM	34	50	17	29	82	30	6	237	34	30	333	10	892	0	0	0	0	0
	7:30 AM	36	54	40	47	98	47	13	251	32	48	333	12	1,011	0	0	0	0	0
	7:45 AM	40	72	30	43	96	53	10	288	35	39	327	15	1,048	0	0	0	0	0
	8:00 AM	30	32	12	11	75	19	13	268	41	16	366	4	887	0	0	0	0	0
	8:15 AM	15	25	16	7	49	18	8	267	11	25	266	7	714	0	0	0	0	0
	8:30 AM	11	11	9	8	28	10	7	182	6	12	274	6	564	0	0	0	1	1
	8:45 AM	8	16	10	6	24	12	1	191	8	11	263	5	555	0	0	0	0	0
	VOLUMES	206	287	154	179	501	212	66	1,893	180	194	2,480	74	6,426	0	0	0	1	1
	APPROACH %	32%	44%	24%	20%	56%	24%	3%	88%	8%	7%	90%	3%						
	APP/DEPART	647	/	427	892	/	874	2,139	/	2,227	2,748	/	2,898	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	140	208	99	130	351	149	42	1,044	142	133	1,359	41	3,838					
	APPROACH %	31%	47%	22%	21%	56%	24%	3%	85%	12%	9%	89%	3%						
	PEAK HR FACTOR		0.787			0.820			0.922			0.975		0.916					
	APP/DEPART	447	/	291	630	/	626	1,228	/	1,273	1,533	/	1,648	0					
PM	4:00 PM	15	68	12	8	25	13	12	339	18	13	196	13	732	0	0	0	0	0
	4:15 PM	22	75	18	12	28	13	15	302	10	6	215	13	729	0	0	0	0	0
	4:30 PM	19	87	17	13	32	16	15	343	8	11	227	13	801	0	0	0	0	0
	4:45 PM	15	78	16	10	20	10	23	283	8	5	219	13	700	0	0	0	0	0
	5:00 PM	14	92	15	17	43	19	19	363	14	15	252	16	879	0	0	1	0	1
	5:15 PM	16	90	20	16	34	16	31	410	11	8	258	14	924	0	0	0	0	0
	5:30 PM	11	91	19	11	31	15	32	319	17	23	255	16	840	0	0	0	0	0
	5:45 PM	16	80	25	9	24	22	27	321	8	11	259	9	811	0	0	0	0	0
	VOLUMES	128	661	142	96	237	124	174	2,680	94	92	1,881	107	6,416	0	0	1	0	1
	APPROACH %	14%	71%	15%	21%	52%	27%	6%	91%	3%	4%	90%	5%						
	APP/DEPART	931	/	941	457	/	423	2,948	/	2,918	2,080	/	2,134	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	57	353	79	53	132	72	109	1,413	50	57	1,024	55	3,454					
	APPROACH %	12%	72%	16%	21%	51%	28%	7%	90%	3%	5%	90%	5%						
	PEAK HR FACTOR		0.970			0.813			0.869			0.966		0.935					
	APP/DEPART	489	/	516	257	/	239	1,572	/	1,545	1,136	/	1,154	0					



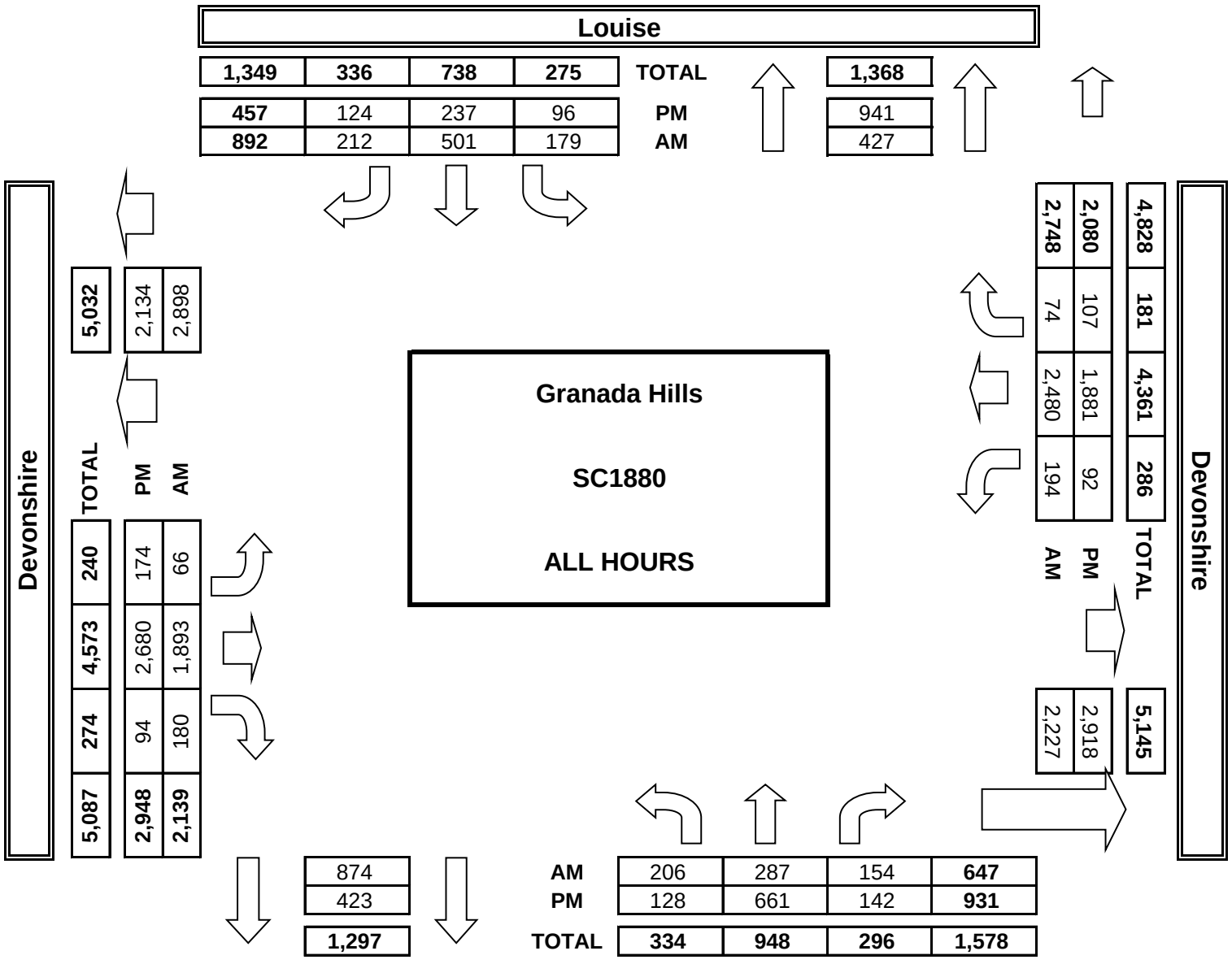
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	2	11	0	3	16
	7:15 AM	4	0	2	4	10
	7:30 AM	1	0	2	2	5
	7:45 AM	3	1	0	2	6
	8:00 AM	2	0	0	0	2
	8:15 AM	1	0	2	5	8
	8:30 AM	0	1	0	0	1
	8:45 AM	1	0	0	1	2
	TOTAL	14	13	6	17	50
	AM BEGIN PEAK HR	7:15 AM				
PM	4:00 PM	1	1	1	2	5
	4:15 PM	3	5	0	4	12
	4:30 PM	2	0	1	0	3
	4:45 PM	4	1	1	0	6
	5:00 PM	3	2	2	4	11
	5:15 PM	3	3	2	0	8
	5:30 PM	2	2	1	1	6
	5:45 PM	1	1	1	2	5
	TOTAL	19	15	9	13	56
	PM BEGIN PEAK HR	5:00 PM				

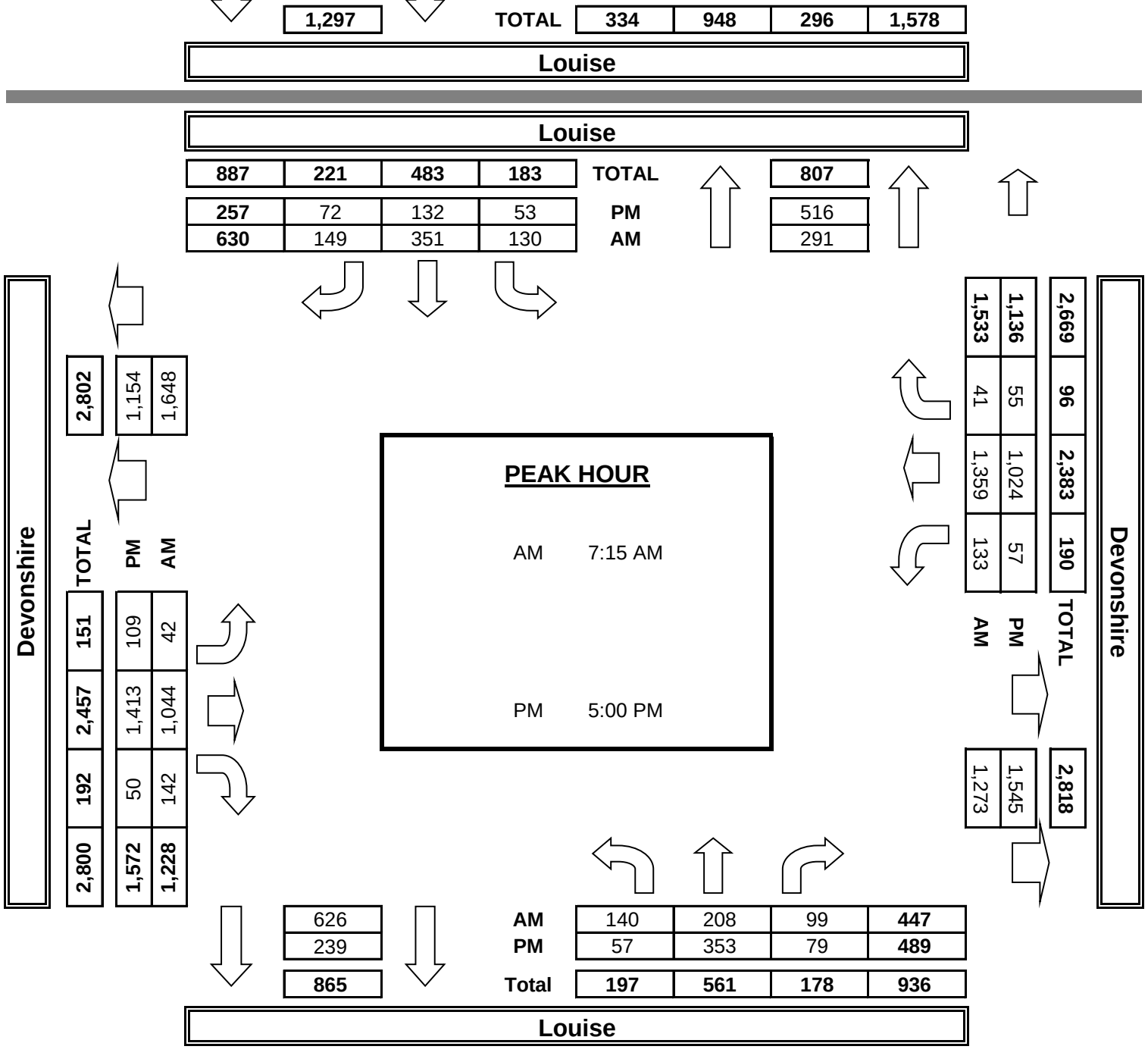
	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	8	0	3	11
7:15 AM	4	0	2	3	9
7:30 AM	1	0	0	2	3
7:45 AM	2	0	0	2	4
8:00 AM	1	0	0	0	1
8:15 AM	0	0	0	5	5
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	1	1
TOTAL	8	8	2	16	34
AM BEGIN PEAK HR	8	0	2	7	17
4:00 PM	1	0	1	2	4
4:15 PM	2	1	0	2	5
4:30 PM	2	0	0	0	2
4:45 PM	1	0	0	0	1
5:00 PM	2	1	2	4	9
5:15 PM	1	1	1	0	3
5:30 PM	1	2	1	1	5
5:45 PM	1	1	1	1	4
TOTAL	11	6	6	10	33
PM BEGIN PEAK HR	5	5	5	6	21

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	2	3	0	0	5
7:15 AM	0	0	0	1	1
7:30 AM	0	0	2	0	2
7:45 AM	1	1	0	0	2
8:00 AM	1	0	0	0	1
8:15 AM	1	0	2	0	3
8:30 AM	0	1	0	0	1
8:45 AM	1	0	0	0	1
TOTAL	6	5	4	1	16
4:00 PM	0	1	0	0	1
4:15 PM	1	4	0	2	7
4:30 PM	0	0	1	0	1
4:45 PM	3	1	1	0	5
5:00 PM	1	1	0	0	2
5:15 PM	2	2	1	0	5
5:30 PM	1	0	0	0	1
5:45 PM	0	0	0	1	1
TOTAL	8	9	3	3	23

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: Amestoy
EAST & WEST: Devonshire

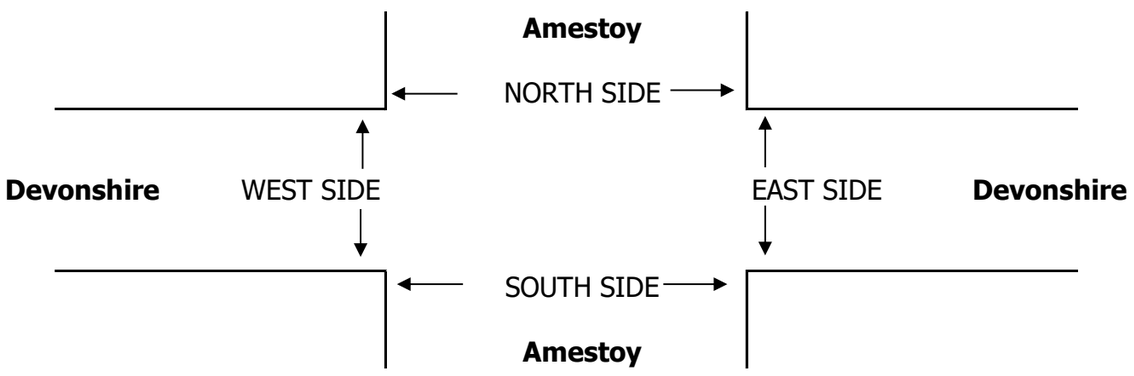
PROJECT #: SC1880
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Amestoy			SOUTHBOUND Amestoy			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	3	9	5	3	15	4	237	2	3	329	10	623	0	0	0	0	0
	7:15 AM	3	2	9	21	9	17	14	291	5	3	340	16	730	0	0	0	0	0
	7:30 AM	5	9	12	45	10	23	21	287	3	7	377	32	831	0	0	0	0	0
	7:45 AM	9	12	14	48	12	49	27	328	5	18	326	44	892	0	0	0	1	1
	8:00 AM	6	3	9	53	11	28	15	288	6	9	370	39	837	0	0	0	0	0
	8:15 AM	3	5	9	18	6	21	12	276	3	1	284	14	652	0	0	0	0	0
	8:30 AM	3	1	9	9	2	11	3	218	6	5	278	11	556	0	0	0	1	1
	8:45 AM	3	4	8	3	2	11	10	196	2	8	269	4	520	0	0	0	2	2
	VOLUMES	35	39	79	202	55	175	106	2,121	32	54	2,573	170	5,641	0	0	0	4	4
	APPROACH %	23%	25%	52%	47%	13%	41%	5%	94%	1%	2%	92%	6%						
	APP/DEPART	153	/	315	432	/	137	2,259	/	2,406	2,797	/	2,783	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	23	26	44	167	42	117	77	1,194	19	37	1,413	131	3,290					
	APPROACH %	25%	28%	47%	51%	13%	36%	6%	93%	1%	2%	89%	8%						
	PEAK HR FACTOR		0.664			0.748			0.896			0.946		0.922					
	APP/DEPART	93	/	234	326	/	97	1,290	/	1,406	1,581	/	1,553	0					
PM	4:00 PM	6	2	5	11	6	8	11	369	2	7	201	13	641	0	0	0	0	0
	4:15 PM	3	3	11	21	3	5	14	342	3	5	223	15	648	0	0	0	0	0
	4:30 PM	3	4	12	15	2	19	11	353	5	12	236	21	693	0	0	0	1	1
	4:45 PM	8	0	7	7	3	7	10	335	1	13	236	16	643	0	0	0	0	0
	5:00 PM	1	4	8	3	3	5	7	350	2	7	261	21	672	0	0	0	0	0
	5:15 PM	1	4	10	8	1	6	12	377	1	7	279	18	724	0	0	0	0	0
	5:30 PM	5	6	6	4	1	8	17	371	7	12	290	25	752	0	0	0	0	0
	5:45 PM	5	2	12	11	3	4	20	316	3	16	245	15	652	0	0	0	1	1
	VOLUMES	32	25	71	80	22	62	102	2,813	24	79	1,971	144	5,425	0	0	0	2	2
	APPROACH %	25%	20%	55%	49%	13%	38%	3%	96%	1%	4%	90%	7%						
	APP/DEPART	128	/	271	164	/	123	2,939	/	2,966	2,194	/	2,065	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	12	16	36	26	8	23	56	1,414	13	42	1,075	79	2,800					
	APPROACH %	19%	25%	56%	46%	14%	40%	4%	95%	1%	4%	90%	7%						
	PEAK HR FACTOR		0.842			0.792			0.939			0.914		0.931					
	APP/DEPART	64	/	151	57	/	62	1,483	/	1,477	1,196	/	1,110	0					



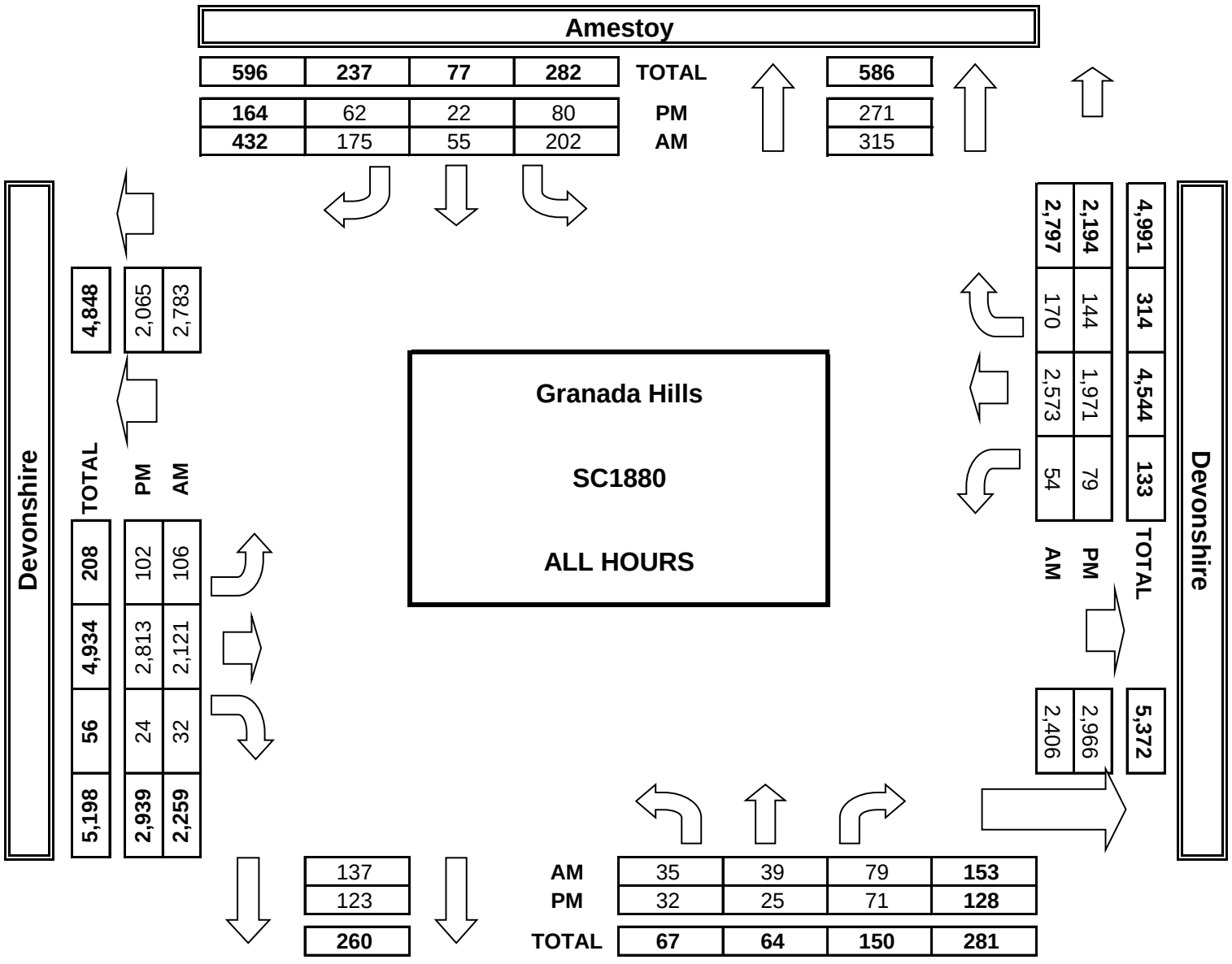
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	2	9	0	0	11
	7:15 AM	2	1	0	1	4
	7:30 AM	3	1	1	0	5
	7:45 AM	6	3	2	0	11
	8:00 AM	7	0	2	1	10
	8:15 AM	1	0	2	0	3
	8:30 AM	0	0	0	0	0
	8:45 AM	1	0	1	0	2
	TOTAL	22	14	8	2	46
	AM BEGIN PEAK HR	7:15 AM				
PM	4:00 PM	1	1	4	0	6
	4:15 PM	1	5	1	1	8
	4:30 PM	1	0	0	0	1
	4:45 PM	3	0	1	0	4
	5:00 PM	1	3	1	0	5
	5:15 PM	1	8	0	1	10
	5:30 PM	1	2	0	0	3
	5:45 PM	2	0	0	0	2
	TOTAL	11	19	7	2	39
	PM BEGIN PEAK HR	5:00 PM				

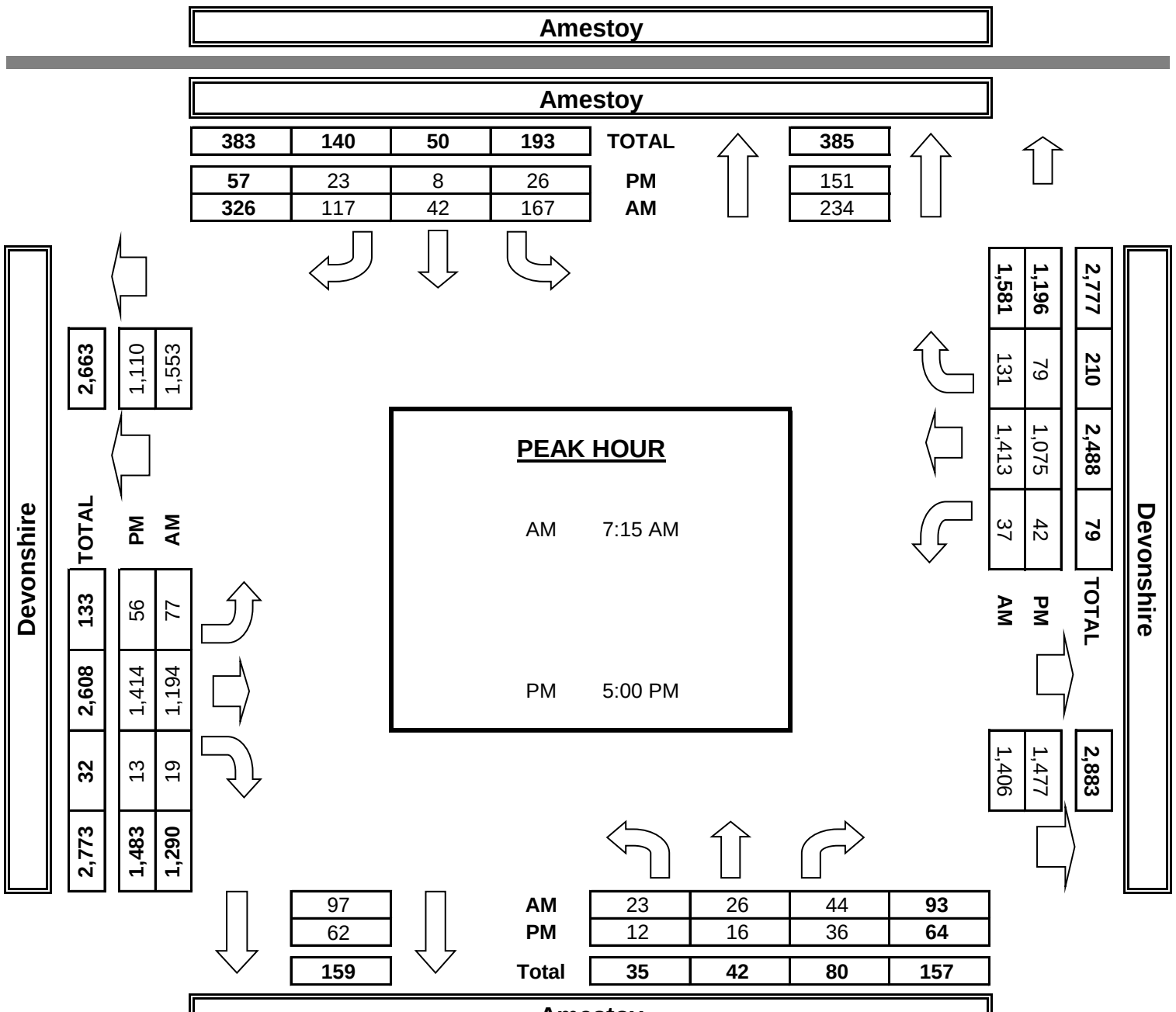
	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	5	0	0	5
7:15 AM	1	0	0	0	1
7:30 AM	3	0	1	0	4
7:45 AM	5	2	2	0	9
8:00 AM	6	0	2	1	9
8:15 AM	0	0	2	0	2
8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1
TOTAL	15	7	8	1	31
AM BEGIN PEAK HR	15	2	5	1	23
4:00 PM	1	0	4	0	5
4:15 PM	1	2	1	1	5
4:30 PM	0	0	0	0	0
4:45 PM	1	0	1	0	2
5:00 PM	1	1	1	0	3
5:15 PM	0	2	0	0	2
5:30 PM	0	2	0	0	2
5:45 PM	1	0	0	0	1
TOTAL	5	7	7	1	20
PM BEGIN PEAK HR	2	5	1	0	8

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	2	4	0	0	6
7:15 AM	1	1	0	1	3
7:30 AM	0	1	0	0	1
7:45 AM	1	1	0	0	2
8:00 AM	1	0	0	0	1
8:15 AM	1	0	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	1	0	0	0	1
TOTAL	7	7	0	1	15
AM BEGIN PEAK HR					
4:00 PM	0	1	0	0	1
4:15 PM	0	3	0	0	3
4:30 PM	1	0	0	0	1
4:45 PM	2	0	0	0	2
5:00 PM	0	2	0	0	2
5:15 PM	1	6	0	1	8
5:30 PM	1	0	0	0	1
5:45 PM	1	0	0	0	1
TOTAL	6	12	0	1	19
PM BEGIN PEAK HR					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: Balboa
EAST & WEST: Devonshire

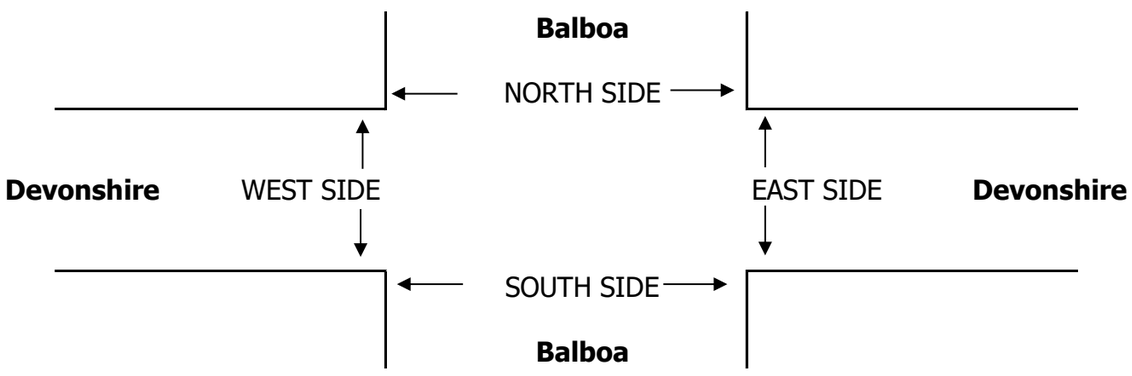
PROJECT #: SC1880
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

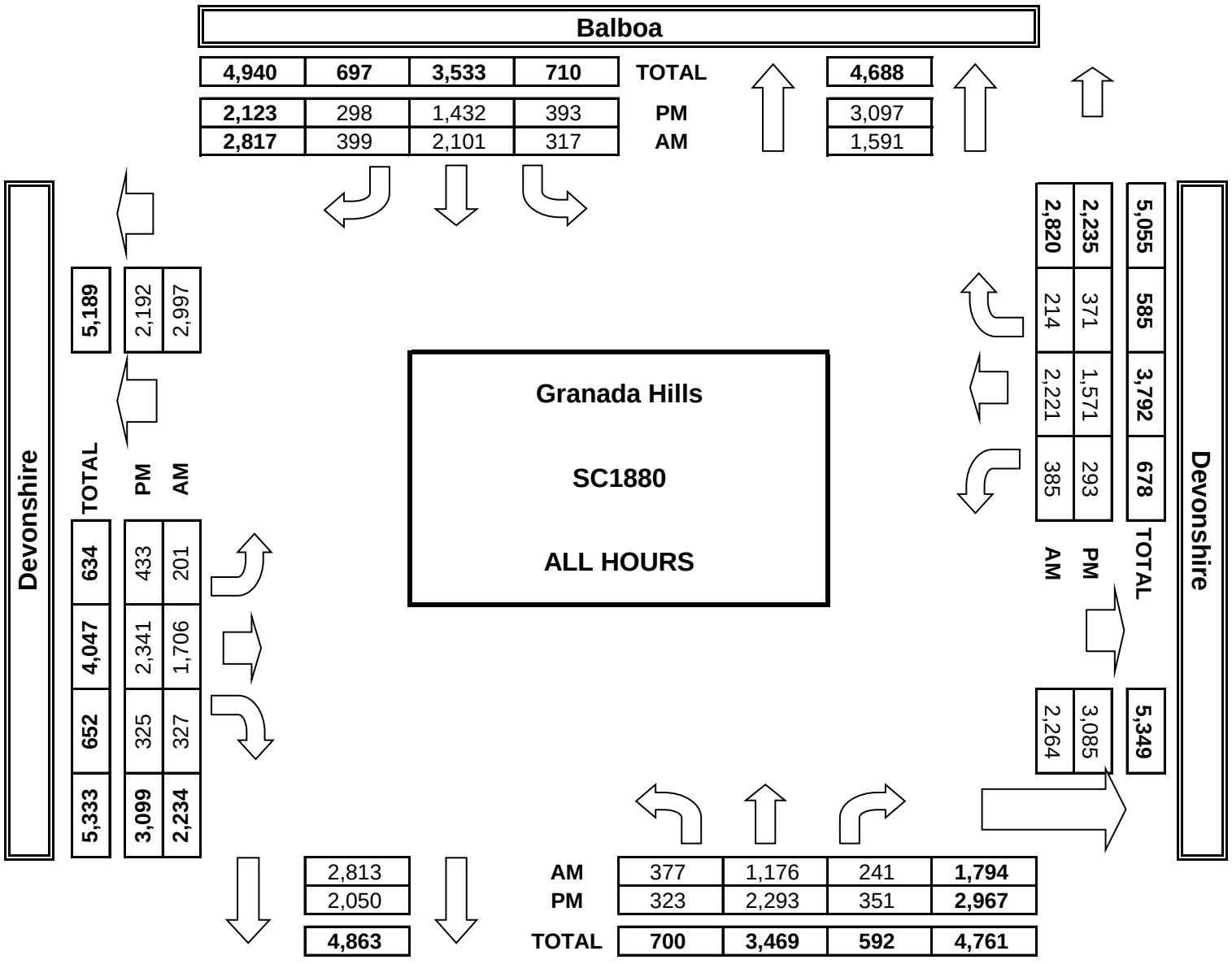
		NORTHBOUND Balboa			SOUTHBOUND Balboa			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	30	107	29	20	237	38	14	154	18	35	246	20	948	0	0	0	0	0
	7:15 AM	37	107	31	29	290	51	15	240	38	53	321	9	1,221	0	0	0	0	0
	7:30 AM	59	159	31	51	266	62	22	246	34	48	333	39	1,350	0	0	0	0	0
	7:45 AM	89	199	25	44	241	44	21	235	49	56	315	25	1,343	0	0	0	0	0
	8:00 AM	58	168	39	67	297	66	43	260	70	56	274	33	1,431	0	0	0	0	0
	8:15 AM	39	181	43	38	283	49	16	255	54	50	304	33	1,345	0	0	0	0	0
	8:30 AM	28	107	23	33	241	43	41	205	36	45	205	24	1,031	0	0	0	0	0
	8:45 AM	37	148	20	35	246	46	29	111	28	42	223	31	996	0	0	0	0	0
	VOLUMES	377	1,176	241	317	2,101	399	201	1,706	327	385	2,221	214	9,665	0	0	0	0	0
	APPROACH %	21%	66%	13%	11%	75%	14%	9%	76%	15%	14%	79%	8%						
	APP/DEPART	1,794	/	1,591	2,817	/	2,813	2,234	/	2,264	2,820	/	2,997	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	245	707	138	200	1,087	221	102	996	207	210	1,226	130	5,469					
	APPROACH %	22%	65%	13%	13%	72%	15%	8%	76%	16%	13%	78%	8%						
	PEAK HR FACTOR		0.871			0.877			0.875			0.932		0.955					
	APP/DEPART	1,090	/	939	1,508	/	1,504	1,305	/	1,334	1,566	/	1,692	0					
PM	4:00 PM	50	287	51	52	183	26	57	322	34	29	157	41	1,289	0	0	0	0	0
	4:15 PM	40	292	42	43	181	28	64	280	44	36	181	51	1,282	0	0	0	0	0
	4:30 PM	46	289	49	52	164	41	41	277	45	35	190	37	1,266	0	0	0	0	0
	4:45 PM	44	316	38	51	195	37	55	299	34	33	193	51	1,346	0	0	0	0	0
	5:00 PM	34	285	40	46	185	37	64	278	38	30	197	48	1,282	0	0	0	0	0
	5:15 PM	31	242	33	51	163	54	43	324	52	38	187	35	1,253	0	0	0	0	0
	5:30 PM	41	290	45	46	183	39	56	283	42	50	227	37	1,339	0	0	0	0	0
	5:45 PM	37	292	53	52	178	36	53	278	36	42	239	71	1,367	0	0	0	0	0
	VOLUMES	323	2,293	351	393	1,432	298	433	2,341	325	293	1,571	371	10,424	0	0	0	0	0
	APPROACH %	11%	77%	12%	19%	67%	14%	14%	76%	10%	13%	70%	17%						
	APP/DEPART	2,967	/	3,097	2,123	/	2,050	3,099	/	3,085	2,235	/	2,192	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	143	1,109	171	195	709	166	216	1,163	168	160	850	191	5,241					
	APPROACH %	10%	78%	12%	18%	66%	16%	14%	75%	11%	13%	71%	16%						
	PEAK HR FACTOR		0.931			0.998			0.923			0.853		0.958					
	APP/DEPART	1,423	/	1,516	1,070	/	1,037	1,547	/	1,529	1,201	/	1,159	0					

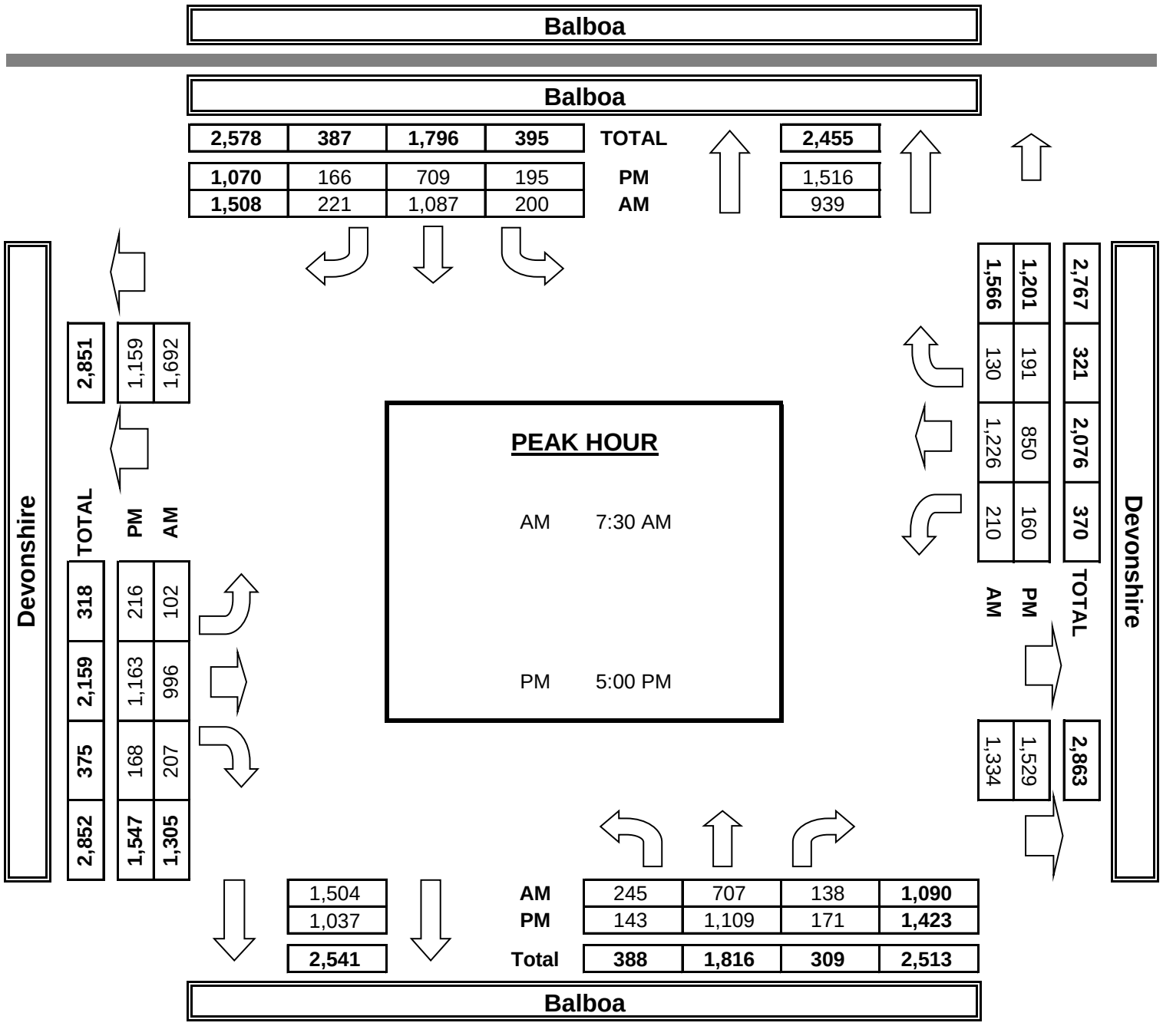


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	6	8	4	8	26	6	5	4	8	23	0	3	0	0	3
	7:15 AM	20	6	11	17	54	16	4	11	17	48	4	2	0	0	6
	7:30 AM	30	10	27	13	80	29	10	27	13	79	1	0	0	0	1
	7:45 AM	33	21	18	37	109	30	21	17	36	104	3	0	1	1	5
	8:00 AM	10	6	12	2	30	9	5	12	1	27	1	1	0	1	3
	8:15 AM	13	5	15	1	34	13	5	14	1	33	0	0	1	0	1
	8:30 AM	6	6	2	5	19	4	6	1	5	16	2	0	1	0	3
	8:45 AM	8	4	8	7	27	7	4	8	7	26	1	0	0	0	1
	TOTAL	126	66	97	90	379	114	60	94	88	356	12	6	3	2	23
	AM BEGIN PEAK HR	7:30 AM					81	41	70	51	243					
PM	4:00 PM	6	14	10	10	40	6	12	10	10	38	0	2	0	0	2
	4:15 PM	2	17	13	12	44	2	17	13	12	44	0	0	0	0	0
	4:30 PM	6	15	15	14	50	6	15	14	14	49	0	0	1	0	1
	4:45 PM	8	4	7	3	22	6	4	7	3	20	2	0	0	0	2
	5:00 PM	14	5	8	8	35	13	4	7	8	32	1	1	1	0	3
	5:15 PM	8	9	11	11	39	4	5	10	8	27	4	4	1	3	12
	5:30 PM	3	10	12	10	35	3	8	12	10	33	0	2	0	0	2
	5:45 PM	3	5	6	7	21	3	5	6	7	21	0	0	0	0	0
	TOTAL	50	79	82	75	286	43	70	79	72	264	7	9	3	3	22
	PM BEGIN PEAK HR	5:00 PM					23	22	35	33	113					

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:			
Wed, Sep 5, 18	LOCATION:	Granada Hills	PROJECT #: SC1880
	NORTH & SOUTH:	I-405 SB Ramps	LOCATION #: 5
	EAST & WEST:	Devonshire	CONTROL: SIGNAL

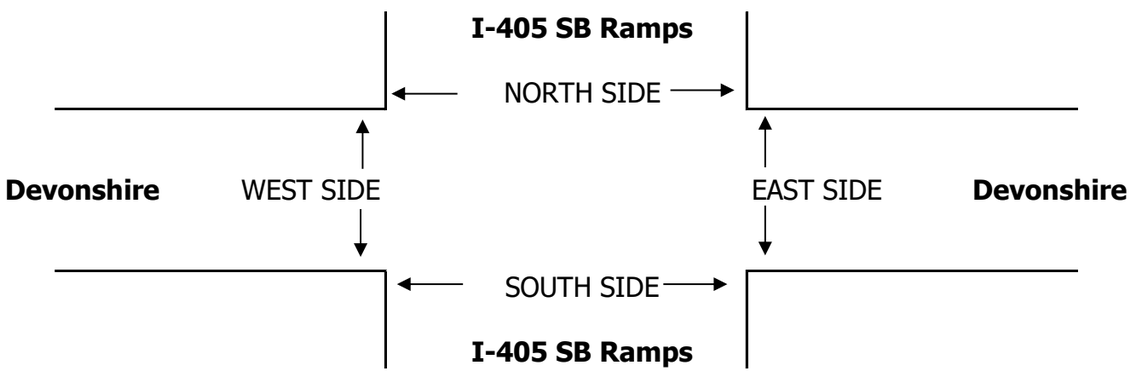
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND I-405 SB Ramps			SOUTHBOUND I-405 SB Ramps			EASTBOUND Devonshire			WESTBOUND Devonshire			
	LANES:	NL X	NT X	NR 1	SL 1	ST X	SR 1	EL X	ET 2	ER 0	WL 0	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	39	0	0	0	39
	7:15 AM	0	0	0	0	0	0	0	0	32	0	0	0	32
	7:30 AM	0	0	0	0	0	0	0	0	39	0	0	0	39
	7:45 AM	0	0	0	0	0	0	0	0	46	0	0	0	46
	8:00 AM	0	0	0	0	0	0	0	0	35	0	0	0	35
	8:15 AM	0	0	0	0	0	0	0	0	43	0	0	0	43
	8:30 AM	0	0	0	0	0	0	0	0	40	0	0	0	40
	8:45 AM	0	0	0	0	0	0	0	0	18	0	0	0	18
	VOLUMES	0	0	0	0	0	0	0	0	292	0	0	0	292
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	292	292	/	0	0	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	0	164	0	0	0	164
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.891			0.000		0.891
	APP/DEPART	0	/	0	0	/	164	164	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	57	0	0	0	57
	4:15 PM	0	0	0	0	0	0	0	0	73	0	0	0	73
	4:30 PM	0	0	0	0	0	0	0	0	77	0	0	0	77
	4:45 PM	0	0	0	0	0	0	0	0	84	0	0	0	84
	5:00 PM	0	0	0	0	0	0	0	0	70	0	0	0	70
	5:15 PM	0	0	0	0	0	0	0	0	98	0	0	0	98
	5:30 PM	0	0	0	0	0	0	0	0	77	0	0	0	77
	5:45 PM	0	0	0	0	0	0	0	0	76	0	0	0	76
	VOLUMES	0	0	0	0	0	0	0	0	612	0	0	0	612
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	612	612	/	0	0	/	0	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	0	329	0	0	0	329
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.839			0.000		0.839
	APP/DEPART	0	/	0	0	/	329	329	/	0	0	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



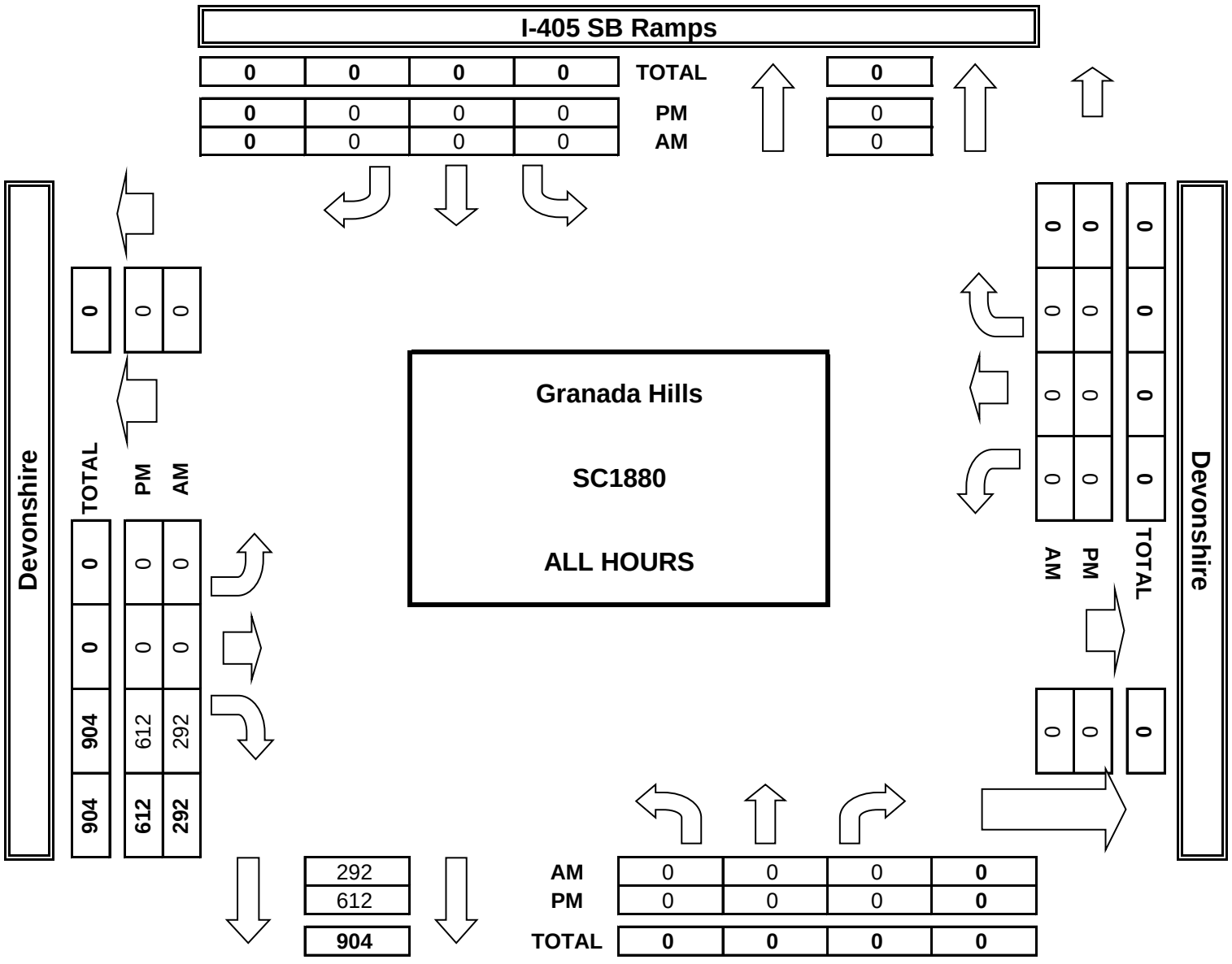
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	1	0	0	1
	7:30 AM	0	1	0	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	1	0	0	1
	8:45 AM	0	0	0	0	0
	TOTAL	0	3	0	0	3
	AM BEGIN PEAK HR	7:45 AM				
PM	4:00 PM	0	1	0	0	1
	4:15 PM	0	1	0	0	1
	4:30 PM	0	1	0	0	1
	4:45 PM	0	0	0	0	0
	5:00 PM	0	1	0	0	1
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	4	0	0	4
	PM BEGIN PEAK HR	4:45 PM				

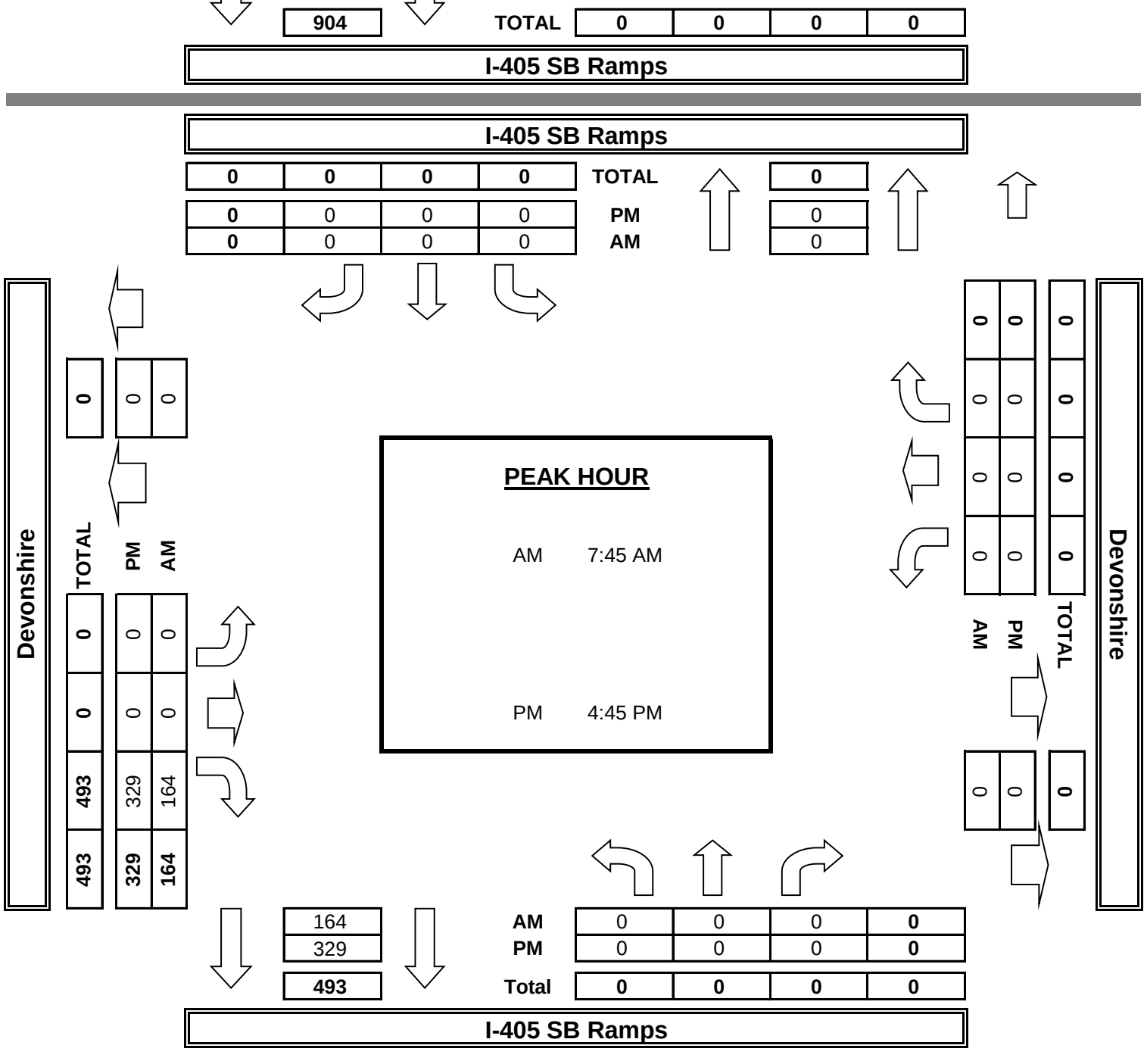
PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	3	0	0	3
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	3	0	0	3
0	1	0	0	1

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: I-405 SB Ramps
EAST & WEST: Devonshire

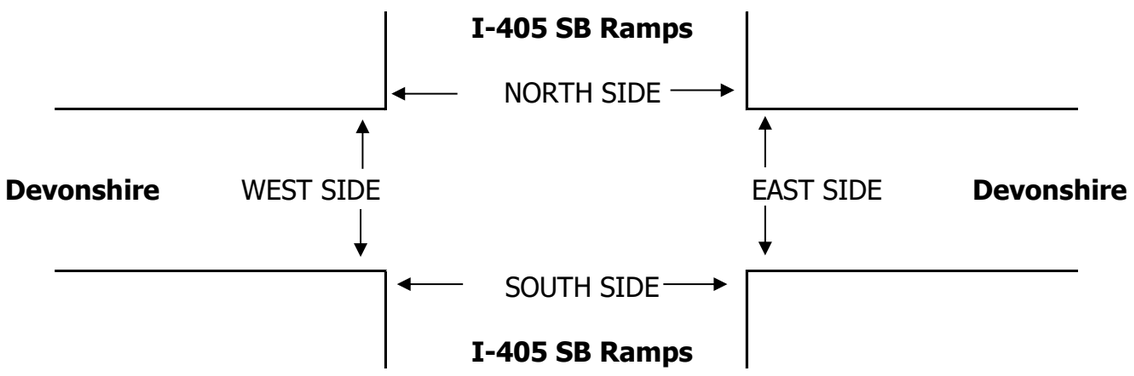
PROJECT #: SC1880
LOCATION #: 5
CONTROL: SIGNAL

NOTES: WB PM queue.

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND I-405 SB Ramps			SOUTHBOUND I-405 SB Ramps			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL X	NT X	NR 1	SL 1	ST X	SR 1	EL X	ET 2	ER 0	WL 0	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	2	66	13	164	0	310	0	0	339	41	935	0	0	0	0	0
	7:15 AM	0	0	0	72	42	172	0	381	2	0	419	34	1,122	0	0	0	0	0
	7:30 AM	0	0	4	75	64	178	0	417	0	0	330	34	1,102	0	0	0	0	0
	7:45 AM	0	0	4	84	41	171	0	441	0	1	367	40	1,149	0	0	0	0	0
	8:00 AM	0	0	3	65	20	187	0	462	2	0	297	30	1,066	0	0	0	0	0
	8:15 AM	0	0	1	75	22	184	0	435	0	1	243	26	987	0	0	0	0	0
	8:30 AM	0	0	0	65	13	194	0	328	3	1	247	26	877	0	0	0	0	0
	8:45 AM	0	0	6	65	16	214	0	241	2	0	250	21	815	0	0	0	0	0
	VOLUMES	0	0	20	567	231	1,464	0	3,015	9	3	2,492	252	8,053	0	0	0	0	0
	APPROACH %	0%	0%	100%	25%	10%	65%	0%	100%	0%	0%	91%	9%						
	APP/DEPART	20	/	252	2,262	/	243	3,024	/	3,602	2,747	/	3,956	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	11	296	167	708	0	1,701	4	1	1,413	138	4,439					
	APPROACH %	0%	0%	100%	25%	14%	60%	0%	100%	0%	0%	91%	9%						
	PEAK HR FACTOR		0.688			0.924			0.919			0.857		0.966					
	APP/DEPART	11	/	138	1,171	/	172	1,705	/	2,008	1,552	/	2,121	0					
PM	4:00 PM	0	0	4	52	0	46	0	421	0	0	238	51	812	0	0	0	0	0
	4:15 PM	0	0	3	50	2	70	0	423	2	0	258	40	848	0	0	0	0	0
	4:30 PM	0	0	6	41	0	59	0	419	1	0	272	42	840	0	0	0	0	0
	4:45 PM	0	0	8	56	0	63	0	439	0	0	265	42	873	0	0	0	0	0
	5:00 PM	0	0	12	56	0	75	0	435	2	0	324	42	946	0	0	0	0	0
	5:15 PM	0	0	5	54	0	114	0	484	1	0	317	41	1,016	0	0	0	0	0
	5:30 PM	0	0	5	41	0	97	0	444	1	2	315	46	951	0	0	0	1	1
	5:45 PM	0	0	9	47	0	79	0	423	0	0	325	28	911	0	0	0	0	0
	VOLUMES	0	0	52	397	2	603	0	3,488	7	2	2,314	332	7,197	0	0	0	1	1
	APPROACH %	0%	0%	100%	40%	0%	60%	0%	100%	0%	0%	87%	13%						
	APP/DEPART	52	/	332	1,002	/	10	3,495	/	3,938	2,648	/	2,917	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	0	0	31	198	0	365	0	1,786	4	2	1,281	157	3,824					
	APPROACH %	0%	0%	100%	35%	0%	65%	0%	100%	0%	0%	89%	11%						
	PEAK HR FACTOR		0.646			0.838			0.923			0.984		0.941					
	APP/DEPART	31	/	157	563	/	5	1,790	/	2,016	1,440	/	1,646	0					



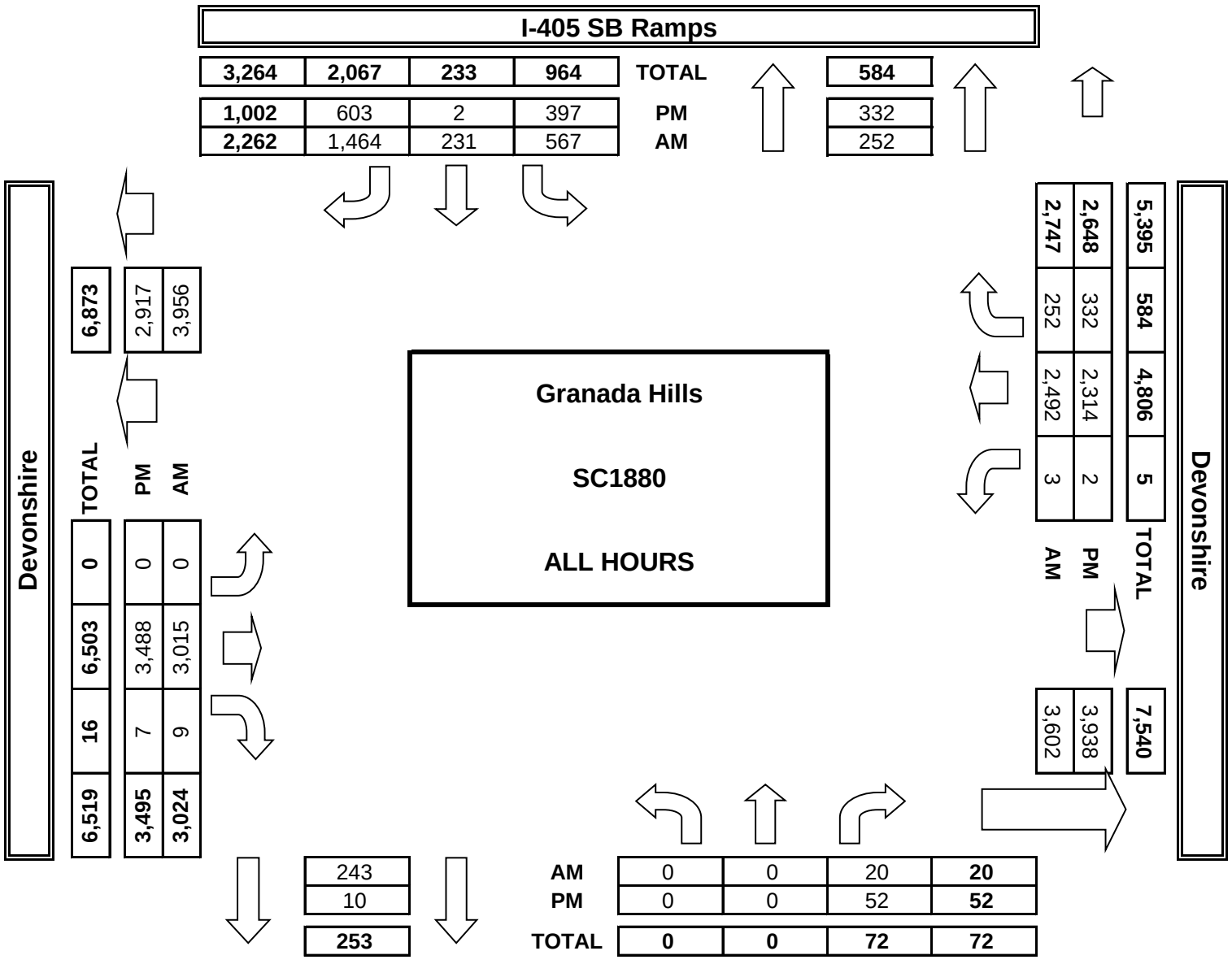
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	3	2	0	0	5
	7:15 AM	3	0	0	0	3
	7:30 AM	1	0	0	0	1
	7:45 AM	2	0	0	0	2
	8:00 AM	0	1	0	0	1
	8:15 AM	1	0	0	0	1
	8:30 AM	1	3	0	0	4
	8:45 AM	2	2	0	0	4
	TOTAL	13	8	0	0	21
	AM BEGIN PEAK HR	7:15 AM				
PM	4:00 PM	1	1	0	0	2
	4:15 PM	1	3	0	0	4
	4:30 PM	2	3	1	0	6
	4:45 PM	4	0	0	2	6
	5:00 PM	3	2	0	0	5
	5:15 PM	0	1	0	0	1
	5:30 PM	0	1	0	0	1
	5:45 PM	1	3	0	0	4
	TOTAL	12	14	1	2	29
	PM BEGIN PEAK HR	5:00 PM				

	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	1	0	0	0	1
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	0	1
8:45 AM	1	2	0	0	3
TOTAL	4	2	0	0	6
AM BEGIN PEAK HR	1	0	0	0	1
4:00 PM	1	0	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	3	1	0	4
4:45 PM	3	0	0	2	5
5:00 PM	2	0	0	0	2
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	1	3	0	0	4
TOTAL	7	6	1	2	16
PM BEGIN PEAK HR	3	3	0	0	6

	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	2	2	0	0	4
7:15 AM	2	0	0	0	2
7:30 AM	1	0	0	0	1
7:45 AM	2	0	0	0	2
8:00 AM	0	1	0	0	1
8:15 AM	1	0	0	0	1
8:30 AM	0	3	0	0	3
8:45 AM	1	0	0	0	1
TOTAL	9	6	0	0	15
4:00 PM	0	1	0	0	1
4:15 PM	1	3	0	0	4
4:30 PM	2	0	0	0	2
4:45 PM	1	0	0	0	1
5:00 PM	1	2	0	0	3
5:15 PM	0	1	0	0	1
5:30 PM	0	1	0	0	1
5:45 PM	0	0	0	0	0
TOTAL	5	8	0	0	13

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: I-405 NB Ramps
EAST & WEST: Devonshire

PROJECT #: SC1880
LOCATION #: 6
CONTROL: SIGNAL

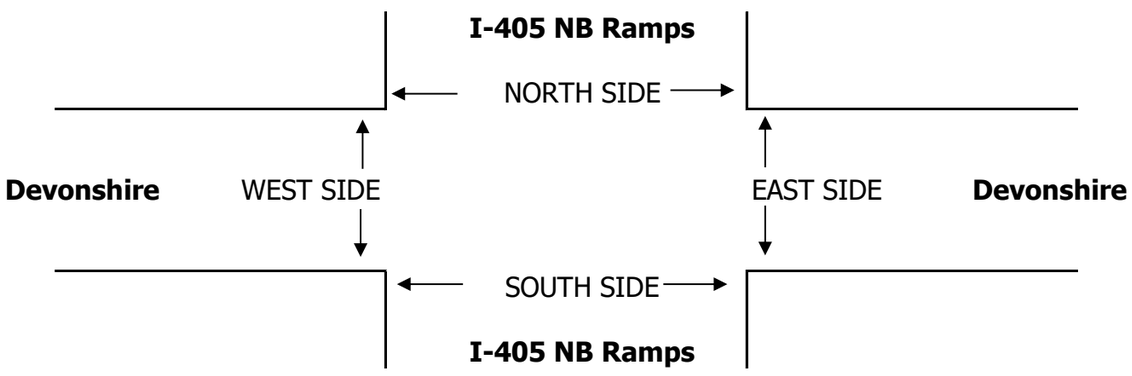
NOTES: EL illegal

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND I-405 NB Ramps			SOUTHBOUND I-405 NB Ramps			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL X	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	84	0	30	0	0	0	0	292	44	0	296	35	781	0	0	0	0	0
	7:15 AM	85	0	53	0	0	0	0	348	74	0	369	37	966	0	0	0	0	0
	7:30 AM	109	0	59	0	0	0	0	372	85	0	254	53	932	0	0	0	0	0
	7:45 AM	86	0	50	0	0	0	0	385	98	0	322	70	1,011	0	0	0	0	0
	8:00 AM	62	0	57	0	0	0	0	416	80	0	264	38	917	0	0	0	0	0
	8:15 AM	49	0	53	0	0	0	0	409	59	0	219	33	822	0	0	0	0	0
	8:30 AM	55	0	51	0	0	0	0	295	58	0	219	30	708	0	0	0	0	0
	8:45 AM	60	0	40	0	0	0	0	256	37	0	212	27	632	0	0	0	0	0
	VOLUMES	590	0	393	0	0	0	0	2,773	535	0	2,155	323	6,769	0	0	0	0	0
	APPROACH %	60%	0%	40%	0%	0%	0%	0%	84%	16%	0%	87%	13%						
	APP/DEPART	983	/	323	0	/	535	3,308	/	3,166	2,478	/	2,745	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	342	0	219	0	0	0	0	1,521	337	0	1,209	198	3,826					
	APPROACH %	61%	0%	39%	0%	0%	0%	0%	82%	18%	0%	86%	14%						
	PEAK HR FACTOR		0.835			0.000			0.936			0.866		0.946					
	APP/DEPART	561	/	198	0	/	337	1,858	/	1,740	1,407	/	1,551	0					
PM	4:00 PM	42	0	58	0	0	0	0	355	66	0	246	17	784	0	0	0	0	0
	4:15 PM	50	0	59	0	0	0	0	339	62	0	249	30	789	0	0	0	0	0
	4:30 PM	54	0	57	0	0	0	1	319	68	0	261	28	788	0	0	0	0	0
	4:45 PM	52	0	75	0	0	0	0	350	70	0	254	17	818	0	0	0	0	0
	5:00 PM	59	0	63	0	0	0	0	378	53	0	307	18	878	0	0	0	0	0
	5:15 PM	43	0	67	0	0	0	0	399	47	0	313	22	891	0	0	0	0	0
	5:30 PM	61	0	84	0	0	0	0	372	41	0	302	23	883	0	0	0	0	0
	5:45 PM	57	1	82	0	0	0	0	361	42	0	297	25	865	0	0	0	0	0
	VOLUMES	418	1	545	0	0	0	1	2,873	449	0	2,229	180	6,696	0	0	0	0	0
	APPROACH %	43%	0%	57%	0%	0%	0%	0%	86%	14%	0%	93%	7%						
	APP/DEPART	964	/	182	0	/	449	3,323	/	3,418	2,409	/	2,647	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	220	1	296	0	0	0	0	1,510	183	0	1,219	88	3,517					
	APPROACH %	43%	0%	57%	0%	0%	0%	0%	89%	11%	0%	93%	7%						
	PEAK HR FACTOR		0.891			0.000			0.949			0.975		0.987					
	APP/DEPART	517	/	89	0	/	183	1,693	/	1,806	1,307	/	1,439	0					



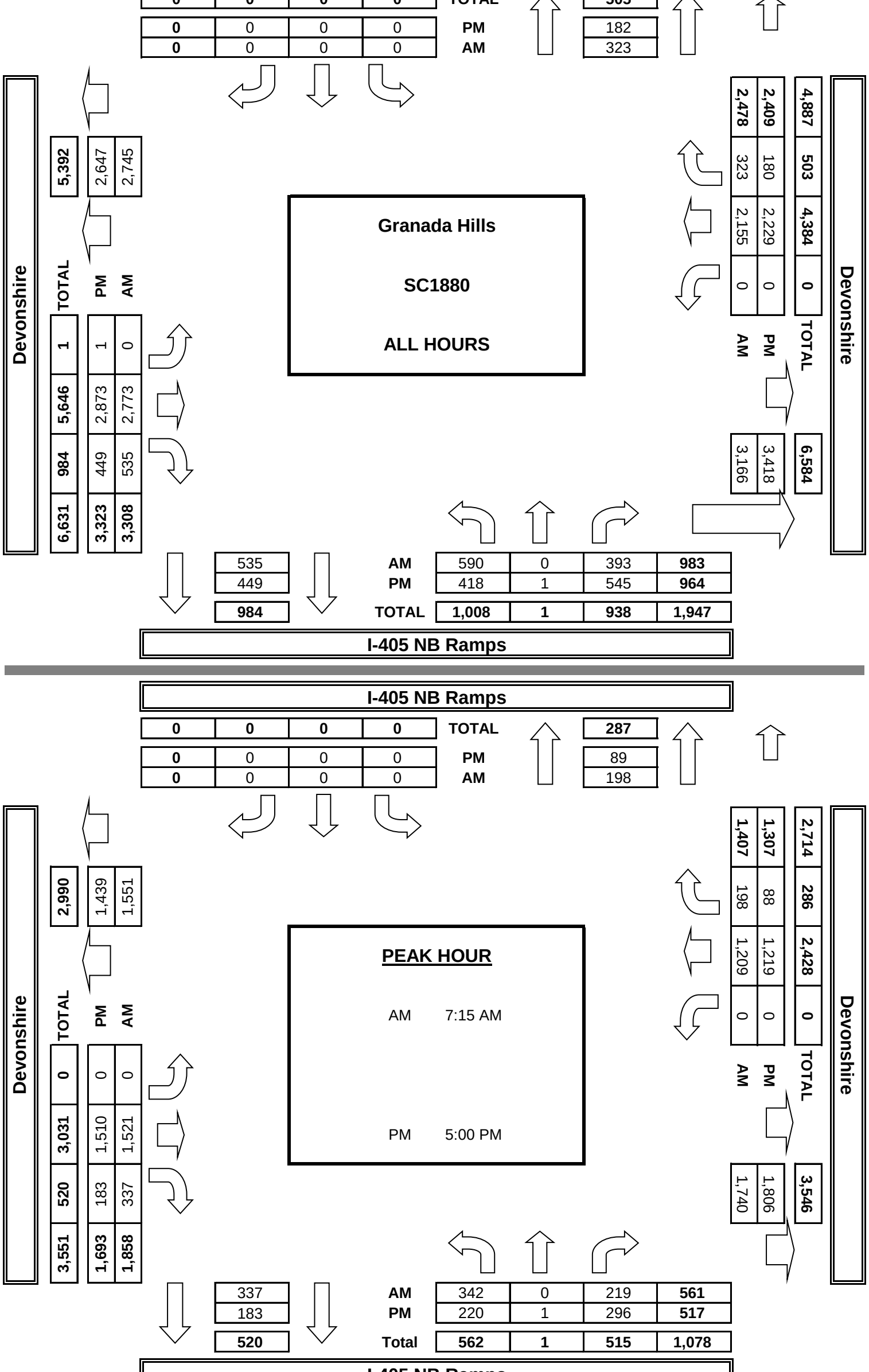
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	3	2	0	0	5
	7:15 AM	2	0	0	0	2
	7:30 AM	1	0	0	0	1
	7:45 AM	2	0	0	0	2
	8:00 AM	0	1	0	0	1
	8:15 AM	1	1	0	0	2
	8:30 AM	0	3	1	0	4
	8:45 AM	1	1	0	0	2
	TOTAL	10	8	1	0	19
	AM BEGIN PEAK HR	7:15 AM				
PM	4:00 PM	0	3	0	0	3
	4:15 PM	2	3	0	0	5
	4:30 PM	4	4	1	0	9
	4:45 PM	3	1	1	0	5
	5:00 PM	2	4	0	0	6
	5:15 PM	1	2	0	0	3
	5:30 PM	1	3	0	0	4
	5:45 PM	1	3	0	0	4
	TOTAL	14	23	2	0	39
	PM BEGIN PEAK HR	5:00 PM				

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	1	0	0	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	1	0	0	1
	TOTAL	1	1	0	0	2
	AM BEGIN PEAK HR	0	0	0	0	0
PM	4:00 PM	0	1	0	0	1
	4:15 PM	1	1	0	0	2
	4:30 PM	2	2	1	0	5
	4:45 PM	2	1	1	0	4
	5:00 PM	1	2	0	0	3
	5:15 PM	1	0	0	0	1
	5:30 PM	0	1	0	0	1
	5:45 PM	1	3	0	0	4
	TOTAL	8	11	2	0	21
	PM BEGIN PEAK HR	3	6	0	0	9

		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
AM	7:00 AM	2	2	0	0	4
	7:15 AM	2	0	0	0	2
	7:30 AM	1	0	0	0	1
	7:45 AM	2	0	0	0	2
	8:00 AM	0	1	0	0	1
	8:15 AM	1	1	0	0	2
	8:30 AM	0	3	1	0	4
	8:45 AM	1	0	0	0	1
	TOTAL	9	7	1	0	17
	AM BEGIN PEAK HR					
PM	4:00 PM	0	2	0	0	2
	4:15 PM	1	2	0	0	3
	4:30 PM	2	2	0	0	4
	4:45 PM	1	0	0	0	1
	5:00 PM	1	2	0	0	3
	5:15 PM	0	2	0	0	2
	5:30 PM	1	2	0	0	3
	5:45 PM	0	0	0	0	0
	TOTAL	6	12	0	0	18
	PM BEGIN PEAK HR					

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
Wed, Sep 5, 18	LOCATION:	Granada Hills	PROJECT #:	SC1880
	NORTH & SOUTH:	Balboa	LOCATION #:	9
	EAST & WEST:	San Jose	CONTROL:	SIGNAL

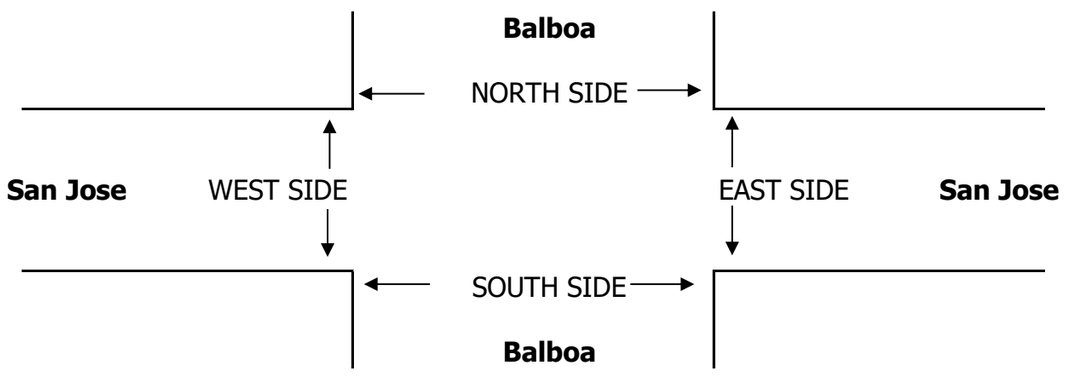
NOTES:

AM SB queue

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Balboa			SOUTHBOUND Balboa			EASTBOUND San Jose			WESTBOUND San Jose				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	7	142	1	2	328	6	7	2	10	8	14	4	531	0	0	0	0	0
	7:15 AM	8	145	4	4	341	17	7	3	22	19	15	8	593	1	1	0	0	2
	7:30 AM	13	183	9	5	328	15	19	20	29	33	29	12	695	0	0	0	0	0
	7:45 AM	17	205	5	8	320	23	35	23	36	34	32	16	754	1	0	0	0	1
	8:00 AM	22	222	4	4	348	7	13	5	21	18	14	6	684	0	0	0	0	0
	8:15 AM	14	213	6	1	284	15	3	7	14	14	5	12	588	0	0	0	0	0
	8:30 AM	13	186	4	7	347	11	7	2	9	6	3	4	599	0	0	0	0	0
	8:45 AM	20	181	9	1	332	21	8	3	8	7	8	9	607	0	0	0	0	0
	VOLUMES	114	1,477	42	32	2,628	115	99	65	149	139	120	71	5,051	2	1	0	0	3
	APPROACH %	7%	90%	3%	1%	95%	4%	32%	21%	48%	42%	36%	22%						
	APP/DEPART	1,633	/	1,648	2,775	/	2,918	313	/	138	330	/	347	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	60	755	22	21	1,337	62	74	51	108	104	90	42	2,726					
	APPROACH %	7%	90%	3%	1%	94%	4%	32%	22%	46%	44%	38%	18%						
	PEAK HR FACTOR		0.844			0.981			0.620			0.720		0.904					
	APP/DEPART	837	/	872	1,420	/	1,551	233	/	93	236	/	210	0					
PM	4:00 PM	12	336	10	8	234	19	10	6	12	5	6	9	667	0	1	0	0	1
	4:15 PM	16	365	13	10	246	6	14	7	13	10	4	14	718	0	0	0	0	0
	4:30 PM	14	360	8	12	266	12	21	4	11	5	3	6	722	0	0	0	0	0
	4:45 PM	13	375	9	6	259	4	11	4	17	6	5	9	718	0	0	0	0	0
	5:00 PM	7	359	10	9	243	7	13	9	21	6	12	11	707	0	0	0	0	0
	5:15 PM	6	351	8	8	260	7	14	7	18	11	6	15	711	0	0	0	0	0
	5:30 PM	12	354	13	11	222	7	12	6	15	13	3	6	674	0	1	0	0	1
	5:45 PM	10	362	12	13	234	8	10	17	13	11	3	8	701	0	1	0	0	1
	VOLUMES	90	2,862	83	77	1,964	70	105	60	120	67	42	78	5,618	0	3	0	0	3
	APPROACH %	3%	94%	3%	4%	93%	3%	37%	21%	42%	36%	22%	42%						
	APP/DEPART	3,035	/	3,048	2,111	/	2,151	285	/	217	187	/	202	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	50	1,459	40	37	1,014	29	59	24	62	27	24	40	2,865					
	APPROACH %	3%	94%	3%	3%	94%	3%	41%	17%	43%	30%	26%	44%						
	PEAK HR FACTOR		0.975			0.931			0.843			0.784		0.992					
	APP/DEPART	1,549	/	1,558	1,080	/	1,103	145	/	101	91	/	103	0					



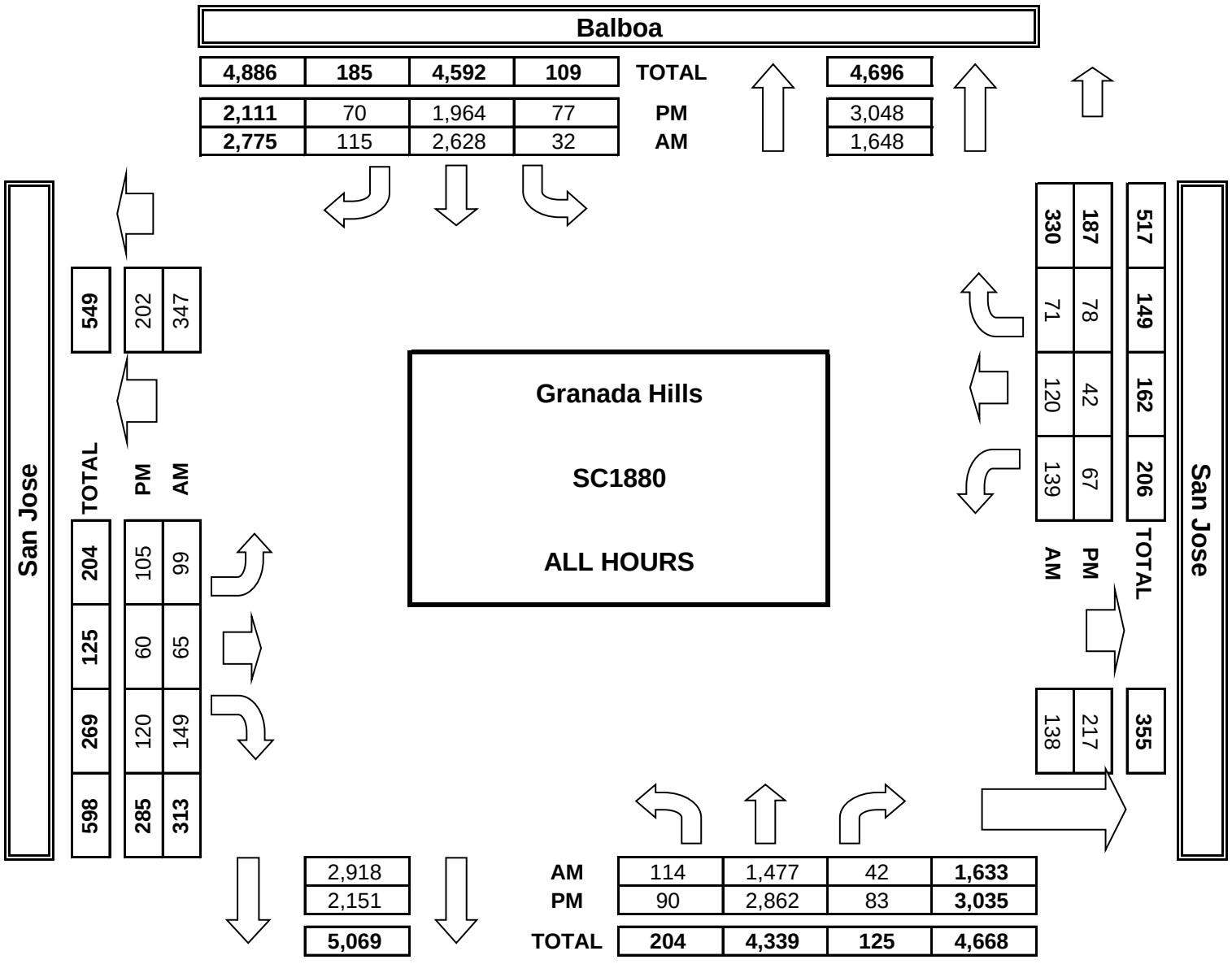
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	3	5	7	0	15
	7:15 AM	8	22	17	13	60
	7:30 AM	5	23	12	14	54
	7:45 AM	2	31	23	39	95
	8:00 AM	1	4	11	6	22
	8:15 AM	3	0	6	3	12
	8:30 AM	0	7	10	5	22
	8:45 AM	3	3	7	4	17
	TOTAL	25	95	93	84	297
	AM BEGIN PEAK HR	7:15 AM				
PM	4:00 PM	5	4	3	2	14
	4:15 PM	2	1	2	6	11
	4:30 PM	2	4	5	6	17
	4:45 PM	0	4	2	2	8
	5:00 PM	3	1	2	5	11
	5:15 PM	4	4	4	6	18
	5:30 PM	1	2	2	4	9
	5:45 PM	1	0	3	3	7
	TOTAL	18	20	23	34	95
	PM BEGIN PEAK HR	4:15 PM				

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	3	5	7	0	15
	7:15 AM	8	18	12	13	51
	7:30 AM	5	23	11	14	53
	7:45 AM	2	29	23	39	93
	8:00 AM	1	4	11	6	22
	8:15 AM	2	0	5	3	10
	8:30 AM	0	6	10	5	21
	8:45 AM	3	2	7	3	15
	TOTAL	24	87	86	83	280
	AM BEGIN PEAK HR	16	74	57	72	219
PM	4:00 PM	4	4	2	2	12
	4:15 PM	2	1	2	6	11
	4:30 PM	1	4	4	6	15
	4:45 PM	0	4	2	2	8
	5:00 PM	3	1	2	5	11
	5:15 PM	4	4	3	5	16
	5:30 PM	1	2	2	4	9
	5:45 PM	1	0	3	2	6
	TOTAL	16	20	20	32	88
	PM BEGIN PEAK HR	6	10	10	19	45

		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	4	5	0	9
	7:30 AM	0	0	1	0	1
	7:45 AM	0	2	0	0	2
	8:00 AM	0	0	0	0	0
	8:15 AM	1	0	1	0	2
	8:30 AM	0	1	0	0	1
	8:45 AM	0	1	0	1	2
	TOTAL	1	8	7	1	17
	AM BEGIN PEAK HR					
PM	4:00 PM	1	0	1	0	2
	4:15 PM	0	0	0	0	0
	4:30 PM	1	0	1	0	2
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	1	1	2
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	1	1
	TOTAL	2	0	3	2	7
	PM BEGIN PEAK HR					

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: Balboa
EAST & WEST: Chatsworth

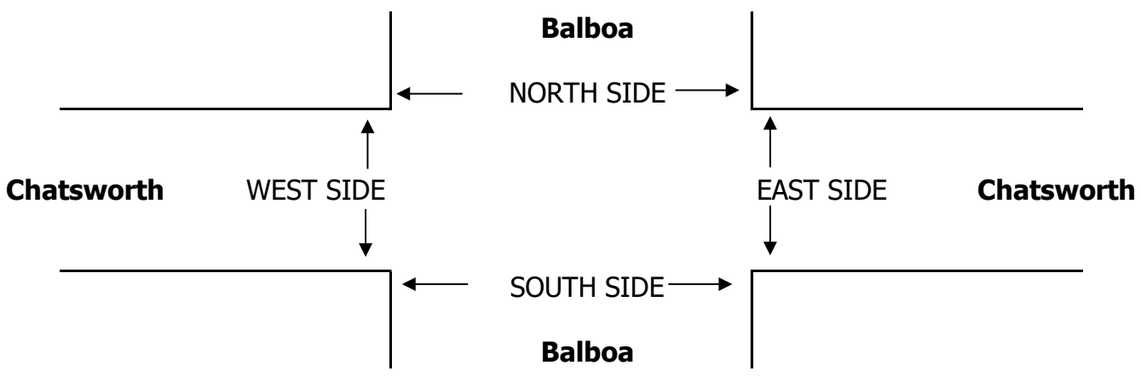
PROJECT #: SC1880
LOCATION #: 10
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Balboa			SOUTHBOUND Balboa			EASTBOUND Chatsworth			WESTBOUND Chatsworth				U-TURNS				
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	8	129	15	1	282	77	68	93	15	28	137	7	860	0	0	0	0	0
	7:15 AM	5	131	18	6	314	79	84	156	25	35	162	9	1,024	0	0	0	0	0
	7:30 AM	11	168	40	5	304	71	76	196	20	55	233	11	1,190	0	0	0	0	0
	7:45 AM	16	198	27	6	303	81	56	205	28	41	282	16	1,259	0	0	0	0	0
	8:00 AM	20	187	18	14	254	68	90	184	31	47	251	17	1,181	0	0	0	0	0
	8:15 AM	12	184	14	11	294	56	82	173	32	35	142	9	1,044	0	0	0	0	0
	8:30 AM	8	161	36	2	327	46	45	88	23	27	116	11	890	0	0	0	0	0
	8:45 AM	15	154	10	16	328	47	44	80	26	39	108	10	877	0	0	0	0	0
	VOLUMES	95	1,312	178	61	2,406	525	545	1,175	200	307	1,431	90	8,325	0	0	0	0	0
	APPROACH %	6%	83%	11%	2%	80%	18%	28%	61%	10%	17%	78%	5%						
	APP/DEPART	1,585	/	1,947	2,992	/	2,913	1,920	/	1,414	1,828	/	2,051	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	59	737	99	36	1,155	276	304	758	111	178	908	53	4,674					
	APPROACH %	7%	82%	11%	2%	79%	19%	26%	65%	9%	16%	80%	5%						
	PEAK HR FACTOR		0.928			0.940			0.961			0.840		0.928					
	APP/DEPART	895	/	1,094	1,467	/	1,444	1,173	/	893	1,139	/	1,243	0					
PM	4:00 PM	24	285	25	11	209	55	102	196	29	35	93	11	1,075	0	1	0	0	1
	4:15 PM	19	324	26	17	192	56	103	162	34	37	108	14	1,092	0	0	0	0	0
	4:30 PM	21	300	35	11	216	53	78	213	33	28	98	16	1,102	0	1	0	0	1
	4:45 PM	23	320	39	15	209	52	84	239	33	24	112	14	1,164	0	0	0	0	0
	5:00 PM	16	278	34	20	182	33	78	255	41	40	121	25	1,123	0	0	0	0	0
	5:15 PM	26	299	26	16	178	49	98	267	34	21	118	10	1,142	0	0	0	0	0
	5:30 PM	21	315	34	16	204	48	92	289	28	28	118	12	1,205	0	0	0	0	0
	5:45 PM	25	294	25	14	198	49	107	258	19	33	105	12	1,139	0	0	0	0	0
	VOLUMES	175	2,415	244	120	1,588	395	742	1,879	251	246	873	114	9,042	0	2	0	0	2
	APPROACH %	6%	85%	9%	6%	76%	19%	26%	65%	9%	20%	71%	9%						
	APP/DEPART	2,834	/	3,273	2,103	/	2,085	2,872	/	2,241	1,233	/	1,443	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	86	1,212	133	67	773	182	352	1,050	136	113	469	61	4,634					
	APPROACH %	6%	85%	9%	7%	76%	18%	23%	68%	9%	18%	73%	9%						
	PEAK HR FACTOR		0.937			0.926			0.940			0.864		0.961					
	APP/DEPART	1,431	/	1,625	1,022	/	1,022	1,538	/	1,250	643	/	737	0					



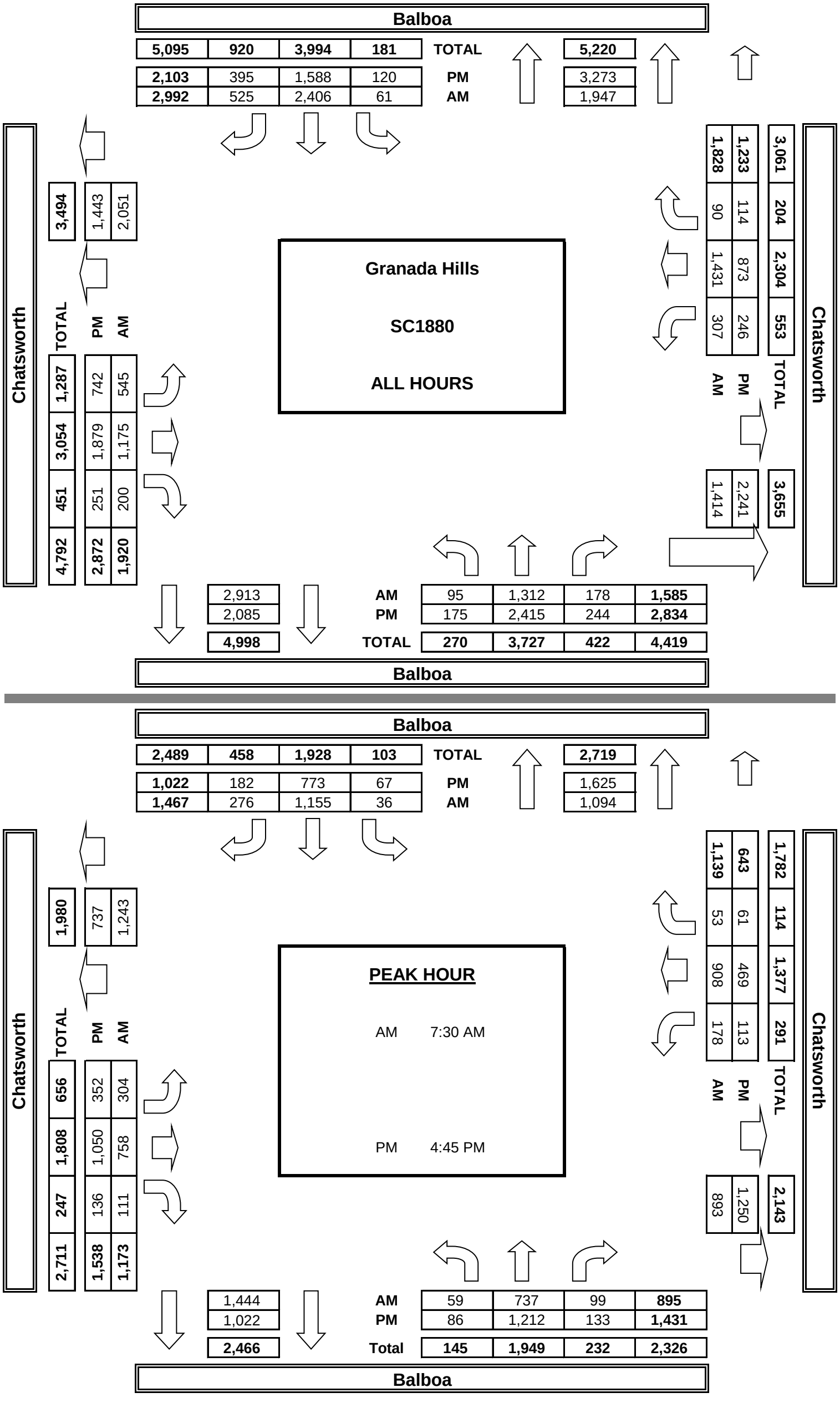
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	1	2	1	1	5
	7:15 AM	1	5	7	2	15
	7:30 AM	2	6	11	4	23
	7:45 AM	6	14	11	5	36
	8:00 AM	3	7	2	2	14
	8:15 AM	4	4	7	3	18
	8:30 AM	2	9	1	2	14
	8:45 AM	1	7	2	1	11
	TOTAL	20	54	42	20	136
	AM BEGIN PEAK HR	7:30 AM				
PM	4:00 PM	3	6	3	0	12
	4:15 PM	6	11	0	4	21
	4:30 PM	3	9	1	12	25
	4:45 PM	2	14	2	0	18
	5:00 PM	1	6	6	7	20
	5:15 PM	8	10	4	6	28
	5:30 PM	2	18	3	3	26
	5:45 PM	3	10	2	3	18
	TOTAL	28	84	21	35	168
	PM BEGIN PEAK HR	4:45 PM				

		PEDESTRIAN CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	2	1	1	4
	7:15 AM	1	5	6	2	14
	7:30 AM	2	6	9	4	21
	7:45 AM	5	14	10	5	34
	8:00 AM	2	7	2	2	13
	8:15 AM	4	4	7	3	18
	8:30 AM	2	8	1	2	13
	8:45 AM	1	6	2	1	10
	TOTAL	17	52	38	20	127
	AM BEGIN PEAK HR	13	31	28	14	86
PM	4:00 PM	0	6	2	0	8
	4:15 PM	4	10	0	4	18
	4:30 PM	3	8	1	12	24
	4:45 PM	1	13	2	0	16
	5:00 PM	1	5	5	7	18
	5:15 PM	6	7	4	6	23
	5:30 PM	2	18	3	3	26
	5:45 PM	3	7	2	3	15
	TOTAL	20	74	19	35	148
	PM BEGIN PEAK HR	10	43	14	16	83

		BICYCLE CROSSINGS				
		NS	SS	ES	WS	TOTAL
AM	7:00 AM	1	0	0	0	1
	7:15 AM	0	0	1	0	1
	7:30 AM	0	0	2	0	2
	7:45 AM	1	0	1	0	2
	8:00 AM	1	0	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	1	0	0	1
	8:45 AM	0	1	0	0	1
	TOTAL	3	2	4	0	9
	AM BEGIN PEAK HR					
PM	4:00 PM	3	0	1	0	4
	4:15 PM	2	1	0	0	3
	4:30 PM	0	1	0	0	1
	4:45 PM	1	1	0	0	2
	5:00 PM	0	1	1	0	2
	5:15 PM	2	3	0	0	5
	5:30 PM	0	0	0	0	0
	5:45 PM	0	3	0	0	3
	TOTAL	8	10	2	0	20
	PM BEGIN PEAK HR					

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Sep 5, 18

LOCATION: Granada Hills
NORTH & SOUTH: Balboa
EAST & WEST: SR-118 EB Ramps

PROJECT #: SC1880
LOCATION #: 11
CONTROL: SIGNAL

NOTES:
NB PM queue

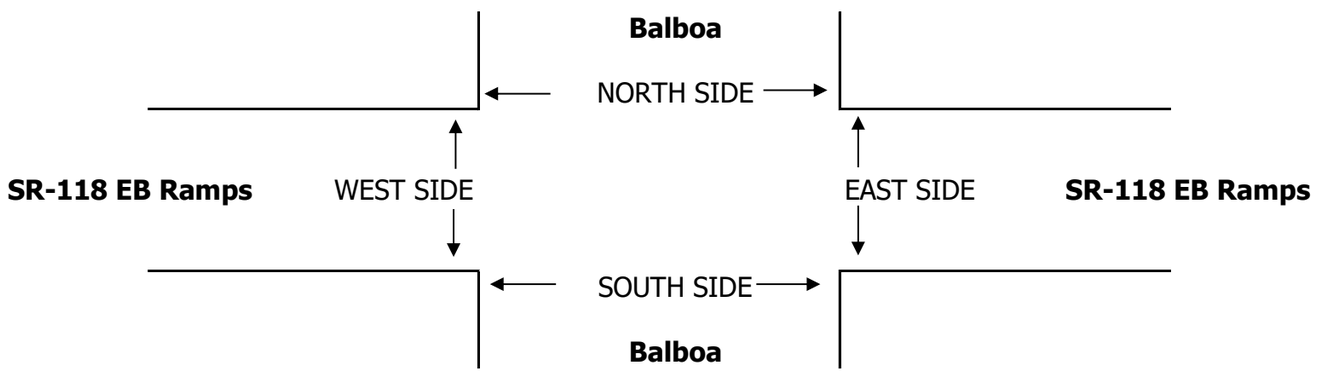
AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Balboa			SOUTHBOUND Balboa			EASTBOUND SR-118 EB Ramps			WESTBOUND SR-118 EB Ramps			
	LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 1	EL 1.5	ET X	ER 1.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	131	118	0	346	143	74	0	69	0	0	0	881
	7:15 AM	0	148	126	0	348	134	89	0	68	0	0	0	913
	7:30 AM	0	256	93	0	298	133	90	0	85	0	0	0	955
	7:45 AM	0	218	95	0	309	120	96	0	101	0	0	0	939
	8:00 AM	0	239	116	0	332	127	98	0	84	0	0	0	996
	8:15 AM	0	201	116	0	328	96	109	0	99	0	0	0	949
	8:30 AM	0	190	83	0	344	116	77	0	72	0	0	0	882
	8:45 AM	0	152	94	0	345	108	69	0	90	0	0	0	858
	VOLUMES	0	1,535	841	0	2,650	977	702	0	668	0	0	0	7,373
	APPROACH %	0%	65%	35%	0%	73%	27%	51%	0%	49%	0%	0%	0%	
	APP/DEPART	2,376	/	2,237	3,627	/	3,318	1,370	/	841	0	/	977	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	914	420	0	1,267	476	393	0	369	0	0	0	3,839
	APPROACH %	0%	69%	31%	0%	73%	27%	52%	0%	48%	0%	0%	0%	
	PEAK HR FACTOR		0.939			0.949			0.916			0.000		0.964
	APP/DEPART	1,334	/	1,307	1,743	/	1,636	762	/	420	0	/	476	0
PM	4:00 PM	0	304	123	0	290	99	187	0	40	0	0	0	1,043
	4:15 PM	0	308	116	0	296	85	170	0	47	0	0	0	1,022
	4:30 PM	0	318	117	0	302	70	152	0	50	0	0	0	1,009
	4:45 PM	0	298	119	0	296	73	174	0	55	0	0	0	1,015
	5:00 PM	0	321	103	0	274	83	169	0	61	0	0	0	1,011
	5:15 PM	0	337	89	0	283	80	173	0	57	0	0	0	1,019
	5:30 PM	0	319	89	0	282	79	192	0	68	0	0	0	1,029
	5:45 PM	0	307	106	0	332	63	206	0	64	0	0	0	1,078
	VOLUMES	0	2,512	862	0	2,355	632	1,423	0	442	0	0	0	8,227
	APPROACH %	0%	74%	26%	0%	79%	21%	76%	0%	24%	0%	0%	0%	
	APP/DEPART	3,374	/	3,936	2,988	/	2,797	1,865	/	862	0	/	632	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	1,284	387	0	1,171	305	740	0	250	0	0	0	4,138
	APPROACH %	0%	77%	23%	0%	79%	21%	75%	0%	25%	0%	0%	0%	
	PEAK HR FACTOR		0.981			0.935			0.917			0.000		0.960
	APP/DEPART	1,671	/	2,025	1,477	/	1,421	990	/	387	0	/	305	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1



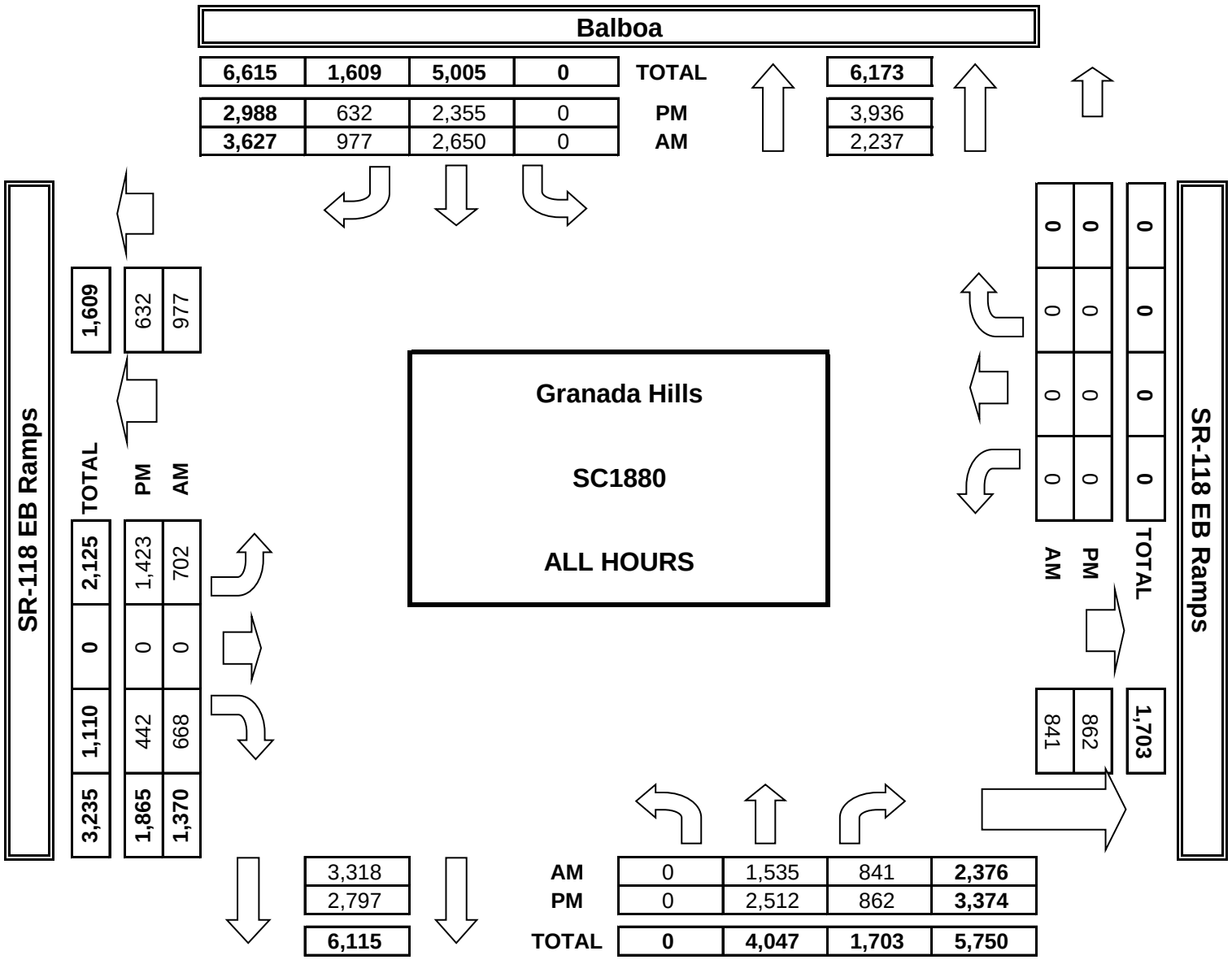
		PEDESTRIAN + BIKE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	3	0	3
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	1	1	2
	8:45 AM	0	0	1	0	1
	TOTAL	0	0	5	1	6
	AM BEGIN PEAK HR	7:30 AM				
PM	4:00 PM	0	0	1	0	1
	4:15 PM	0	0	0	1	1
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	3	0	3
	5:00 PM	0	0	2	0	2
	5:15 PM	0	0	0	1	1
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	6	2	8
	PM BEGIN PEAK HR	5:00 PM				

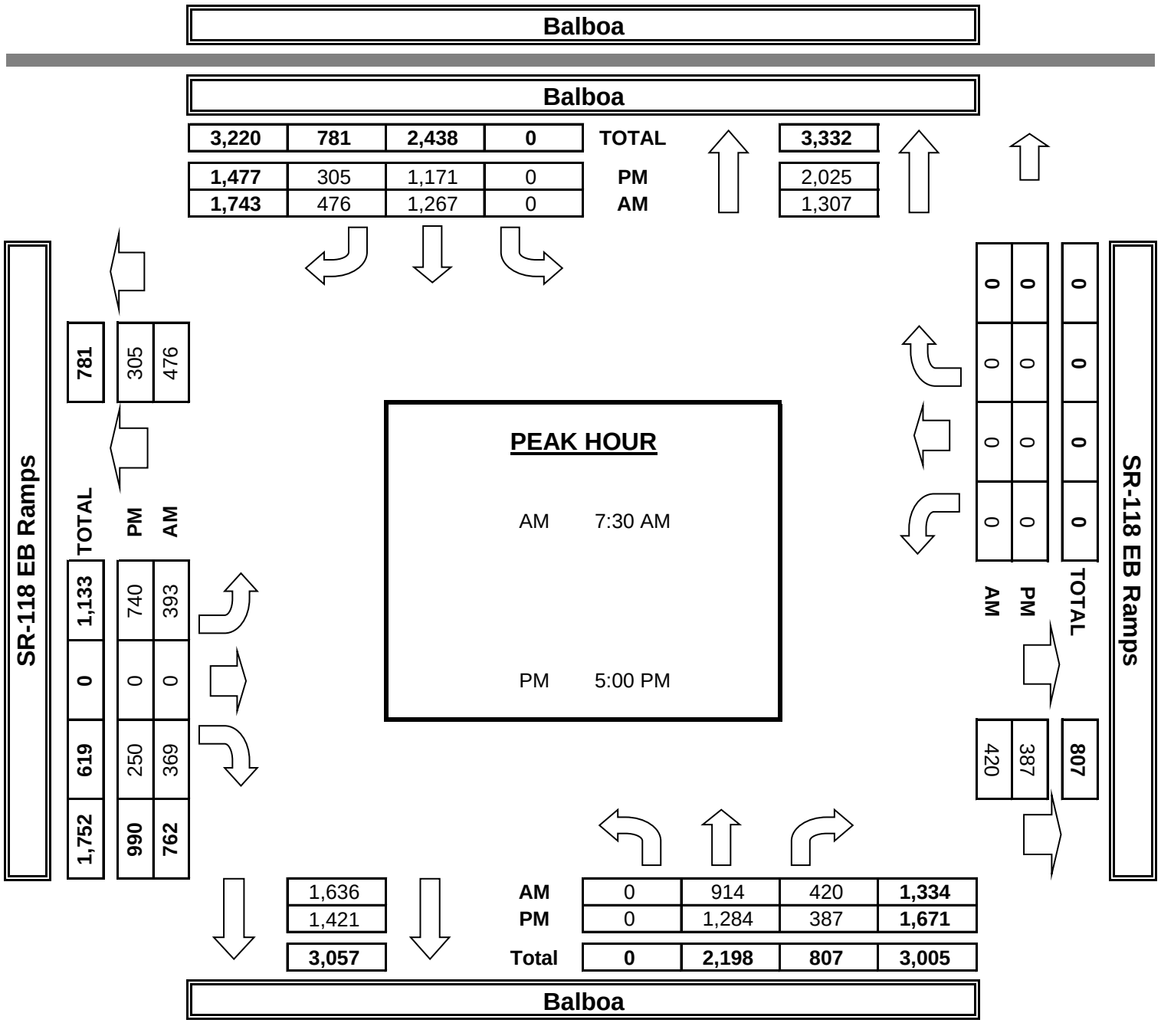
PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	1	1	2
0	0	1	0	1
0	0	5	1	6
0	0	3	0	3
0	0	1	0	1
0	0	0	1	1
0	0	0	0	0
0	0	2	0	2
0	0	2	0	2
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	5	2	7
0	0	2	1	3

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
Wed, Sep 5, 18	LOCATION:	Granada Hills	PROJECT #:	SC1880
	NORTH & SOUTH:	Balboa	LOCATION #:	12
	EAST & WEST:	SR-118 WB Ramps	CONTROL:	SIGNAL

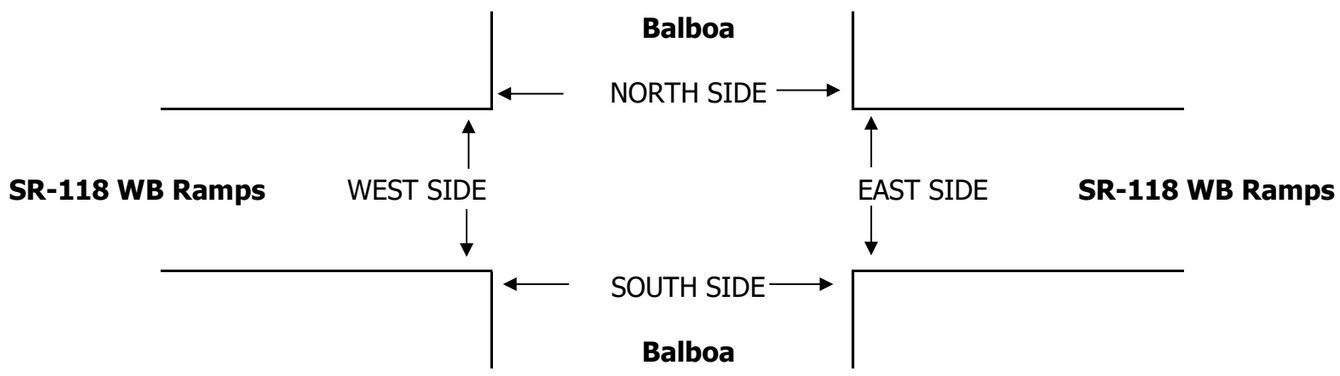
NOTES:

NB PM queue

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

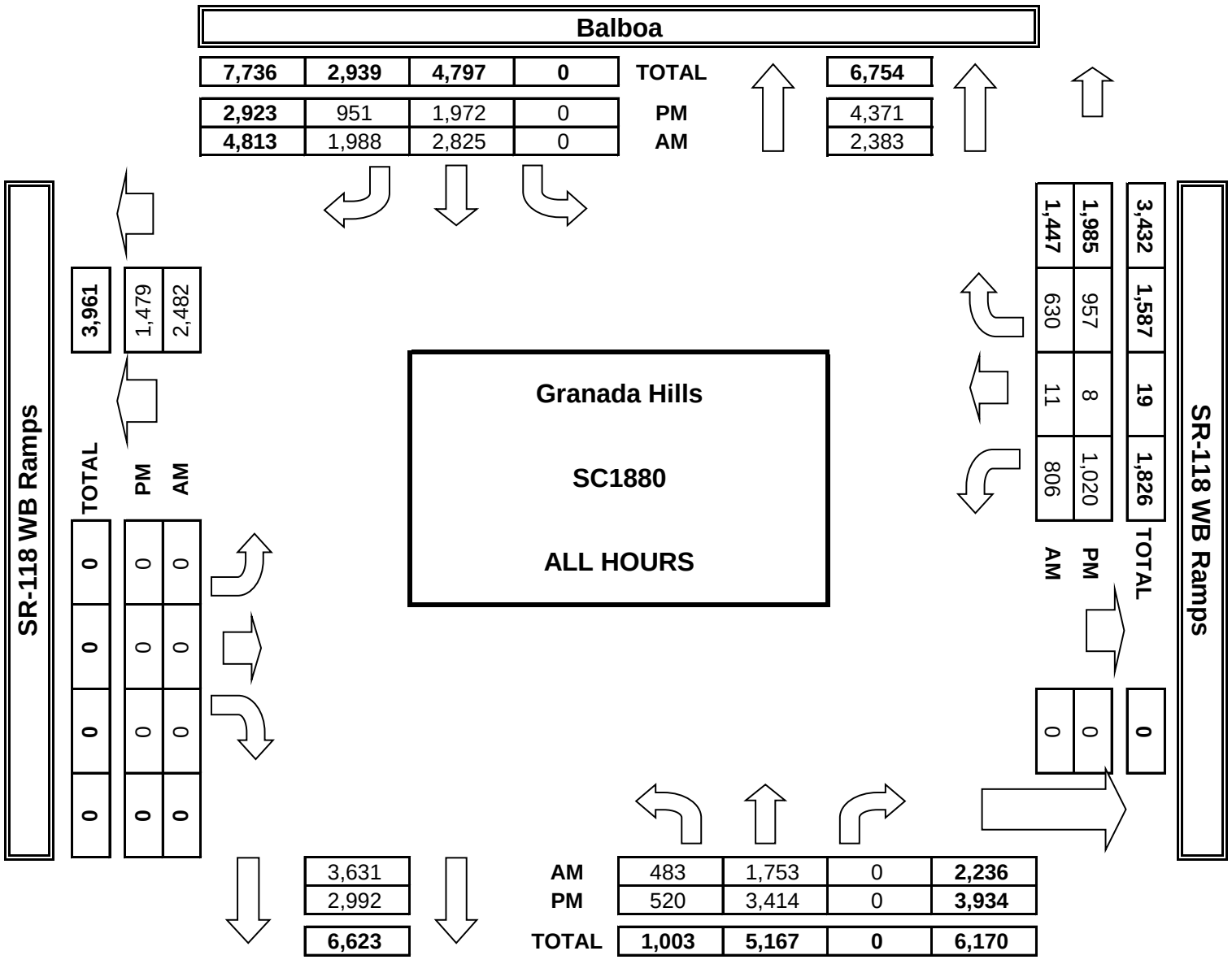
		NORTHBOUND Balboa			SOUTHBOUND Balboa			EASTBOUND SR-118 WB Ramps			WESTBOUND SR-118 WB Ramps				U-TURNS				
	LANES:	NL 1	NT 3	NR X	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.3	WT 0.3	WR 1.3	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	44	160	0	0	371	270	0	0	0	119	1	83	1,048	0	0	0	0	0
	7:15 AM	44	193	0	0	366	290	0	0	0	117	0	82	1,092	0	0	0	0	0
	7:30 AM	73	275	0	0	351	262	0	0	0	81	2	86	1,130	0	0	0	0	0
	7:45 AM	68	244	0	0	319	249	0	0	0	110	1	106	1,097	0	0	0	0	0
	8:00 AM	78	261	0	0	377	197	0	0	0	82	2	75	1,072	0	0	0	0	0
	8:15 AM	80	229	0	0	322	242	0	0	0	101	1	66	1,041	0	0	0	0	0
	8:30 AM	59	209	0	0	385	237	0	0	0	74	0	55	1,019	0	0	0	0	0
	8:45 AM	37	182	0	0	334	241	0	0	0	122	4	77	997	0	0	0	0	0
	VOLUMES	483	1,753	0	0	2,825	1,988	0	0	0	806	11	630	8,496	0	0	0	0	0
	APPROACH %	22%	78%	0%	0%	59%	41%	0%	0%	0%	56%	1%	44%						
	APP/DEPART	2,236	/	2,383	4,813	/	3,631	0	/	0	1,447	/	2,482	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	263	973	0	0	1,413	998	0	0	0	390	5	349	4,391					
	APPROACH %	21%	79%	0%	0%	59%	41%	0%	0%	0%	52%	1%	47%						
	PEAK HR FACTOR		0.888			0.919			0.000			0.857		0.971					
	APP/DEPART	1,236	/	1,322	2,411	/	1,803	0	/	0	744	/	1,266	0					
PM	4:00 PM	66	425	0	0	225	84	0	0	0	164	2	96	1,062	0	0	0	0	0
	4:15 PM	52	425	0	0	269	117	0	0	0	113	1	114	1,091	0	0	0	0	0
	4:30 PM	68	403	0	0	233	112	0	0	0	140	0	114	1,070	0	0	0	0	0
	4:45 PM	71	399	0	0	258	113	0	0	0	109	1	99	1,050	0	0	0	0	0
	5:00 PM	64	426	0	0	244	127	0	0	0	115	0	123	1,099	0	0	0	0	0
	5:15 PM	71	440	0	0	253	146	0	0	0	111	3	133	1,157	0	0	0	0	0
	5:30 PM	71	440	0	0	236	128	0	0	0	127	1	137	1,140	0	0	0	0	0
	5:45 PM	57	456	0	0	254	124	0	0	0	141	0	141	1,173	0	0	0	0	0
	VOLUMES	520	3,414	0	0	1,972	951	0	0	0	1,020	8	957	8,842	0	0	0	0	0
	APPROACH %	13%	87%	0%	0%	67%	33%	0%	0%	0%	51%	0%	48%						
	APP/DEPART	3,934	/	4,371	2,923	/	2,992	0	/	0	1,985	/	1,479	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	263	1,762	0	0	987	525	0	0	0	494	4	534	4,569					
	APPROACH %	13%	87%	0%	0%	65%	35%	0%	0%	0%	48%	0%	52%						
	PEAK HR FACTOR		0.987			0.947			0.000			0.915		0.974					
	APP/DEPART	2,025	/	2,296	1,512	/	1,481	0	/	0	1,032	/	792	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	8:45 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	TOTAL	0	0	4	1	5	0	0	4	1	5	0	0	0	0	0
	AM BEGIN PEAK HR	7:15 AM					0	0	2	0	2					
PM	4:00 PM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	4:15 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	4:30 PM	0	0	5	0	5	0	0	4	0	4	0	0	1	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	10	2	12	0	0	9	2	11	0	0	1	0	1
	PM BEGIN PEAK HR	5:00 PM					0	0	2	1	3					

AimTD LLC

TURNING MOVEMENT COUNTS



Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Zelzah Avenue	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
1	East-West Street:	Devonshire Street	Projection Year:	2023	Peak Hour:	7:15	Reviewed by:	MAI	Project:	Granada Hills School

No. of Phases			2			2			2			2			2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	0	SB -- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0
	EB --	0	WB -- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	102	1	**102**	0	102	**102**	0	107	1	**107**	0	107	1	**107**	0	107	1	**107**
	Left-Through		0							0				0				0	
	Through	534	2	267	0	534	267	12	573	2	287	0	573	2	287	0	573	2	287
	Through-Right		0							0				0				0	
	Right	114	1	20	0	114	20	0	120	1	21	0	120	1	21	0	120	1	21
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	167	1	167	4	171	171	0	176	1	176	4	180	1	180	-3	177	1	177
	Left-Through		0							0				0				0	
	Through	619	1	**423**	0	619	**423**	4	655	1	**447**	0	655	1	**447**	0	655	1	**447**
	Through-Right		1							1				1				1	
	Right	226	0	226	0	226	226	0	238	0	238	0	238	0	238	0	238	0	238
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	86	1	**86**	0	86	**86**	0	90	1	**90**	0	90	1	**90**	0	90	1	**90**
	Left-Through		0							0				0				0	
	Through	914	2	457	16	930	465	0	961	2	481	16	977	2	489	-13	964	2	482
	Through-Right		0							0				0				0	
	Right	173	1	122	0	173	122	0	182	1	129	0	182	1	129	0	182	1	129
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	188	1	188	0	188	188	0	198	1	198	0	198	1	198	0	198	1	198
	Left-Through		0							0				0				0	
	Through	1372	2	**686**	13	1385	**693**	0	1442	2	**721**	13	1455	2	**728**	-8	1447	2	**724**
	Through-Right		0							0				0				0	
	Right	175	0	0	3	178	0	0	184	0	0	3	187	0	0	-2	185	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		525	*North-South:*		525	*North-South:*			554	*North-South:*			554	*North-South:*			554
		East-West:		772	*East-West:*		779	*East-West:*			811	*East-West:*			818	*East-West:*			814
		SUM:		1297	*SUM:*		1304	*SUM:*			1365	*SUM:*			1372	*SUM:*			1368
VOLUME/CAPACITY *(V/C)* RATIO:				0.865			0.869				0.910				0.915				0.912
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.765**			**0.769**				**0.810**				**0.815**				**0.812**
LEVEL OF SERVICE (LOS):				C			C				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Louise Avenue	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
2	East-West Street:	Devonshire Street	Projection Year:	2023	Peak Hour:	7:15	Reviewed by:	MAI	Project:	Granada Hills School

No. of Phases			2			2			2			2			2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	0	SB -- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB --	0	WB -- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	140	1	**140**	0	140	**140**	0	147	1	**147**	0	147	1	**147**	0	147	1	**147**
	Left-Through		0							0				0				0	
	Through	208	1	154	0	208	164	0	219	1	162	0	219	1	172	0	219	1	164
	Through-Right		1							1				1				1	
	Right	99	0	99	20	119	119	0	104	0	104	20	124	0	124	-16	108	0	108
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	130	1	130	12	142	142	0	137	1	137	12	149	1	149	-10	139	1	139
	Left-Through		0							0				0				0	
	Through	351	1	**351**	0	351	**351**	0	369	1	**369**	0	369	1	**369**	0	369	1	**369**
	Through-Right		0							0				0				0	
	Right	149	1	128	16	165	144	0	157	1	135	16	173	1	151	-10	163	1	141
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	42	1	**42**	0	42	**42**	0	44	1	**44**	0	44	1	**44**	0	44	1	**44**
	Left-Through		0							0				0				0	
	Through	1044	2	522	75	1119	560	27	1124	2	562	75	1199	2	600	-60	1139	2	570
	Through-Right		0							0				0				0	
	Right	142	1	72	0	142	72	0	149	1	76	0	149	1	76	0	149	1	76
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	133	1	133	16	149	149	0	140	1	140	16	156	1	156	-10	146	1	146
	Left-Through		0							0				0				0	
	Through	1359	2	**680**	45	1404	**702**	8	1436	2	**718**	45	1481	2	**741**	-29	1452	2	**726**
	Through-Right		0							0				0				0	
	Right	41	1	0	10	51	0	0	43	1	0	10	53	1	0	-6	47	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		491	*North-South:*		491	*North-South:*			516	*North-South:*			516	*North-South:*			516
		East-West:		722	*East-West:*		744	*East-West:*			762	*East-West:*			785	*East-West:*			770
		SUM:		1213	*SUM:*		1235	*SUM:*			1278	*SUM:*			1301	*SUM:*			1286
VOLUME/CAPACITY *(V/C)* RATIO:				0.809			0.823				0.852				0.867				0.857
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.709**			**0.723**				**0.752**				**0.767**				**0.757**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	Δ*v/c* after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Amestoy Avenue	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	9/20/2018
3	East-West Street:	Devonshire Street	Projection Year:	2023	Peak Hour:	7:15	Reviewed by:	MAI	Project:	Granada Hills School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--
	EB -- 0	WB --	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	23	0	23	0	23	23	0	24	0	24	0	24	0	24	0	24	0	24
Left-Through		0							0				0				0	
Through	26	0	**93**	4	30	**109**	0	27	0	**97**	4	31	0	**113**	-3	28	0	**100**
Through-Right		0							0				0				0	
Right	44	0	0	12	56	0	0	46	0	0	12	58	0	0	-10	48	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	167	0	**167**	100	267	**267**	0	176	0	**176**	100	276	0	**276**	-64	212	0	**212**
Left-Through		1							1				1				1	
Through	42	0	209	13	55	322	0	44	0	220	13	57	0	333	-8	49	0	261
Through-Right		0							0				0				0	
Right	117	1	79	0	117	71	0	123	1	83	0	123	1	75	0	123	1	81
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	77	1	**77**	16	93	**93**	0	81	1	**81**	16	97	1	**97**	-12	85	1	**85**
Left-Through		0							0				0				0	
Through	1194	2	597	91	1285	643	27	1282	2	641	91	1373	2	687	-68	1305	2	653
Through-Right		0							0				0				0	
Right	19	1	19	0	19	19	0	20	1	20	0	20	1	20	0	20	1	20
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	37	1	37	0	37	37	0	39	1	39	0	39	1	39	0	39	1	39
Left-Through		0							0				0				0	
Through	1413	2	**707**	71	1484	**742**	8	1493	2	**747**	71	1564	2	**782**	-49	1515	2	**758**
Through-Right		0							0				0				0	
Right	131	1	131	36	167	167	0	138	1	138	36	174	1	174	-27	147	1	147
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		260	*North-South:*		376	*North-South:*			273	*North-South:*			389	*North-South:*			312
	East-West:		784	*East-West:*		835	*East-West:*			828	*East-West:*			879	*East-West:*			843
	SUM:		1044	*SUM:*		1211	*SUM:*			1101	*SUM:*			1268	*SUM:*			1155
VOLUME/CAPACITY *(V/C)* RATIO:			0.696			0.807				0.734				0.845				0.770
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.596**			**0.707**				**0.634**				**0.745**				**0.670**
LEVEL OF SERVICE (LOS):			**A**			**C**				**B**				**C**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.111	Δ*v/c* after mitigation:	0.036
Significant impacted?	YES	Fully mitigated?	YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Balboa Boulevard	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
4	East-West Street:	Devonshire Street	Projection Year:	2023	Peak Hour:	7:30	Reviewed by:	MAI	Project:	Granada Hills School

No. of Phases			4			4			4			4			4				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB -- 0	SB --	0	NB-- 0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	
	EB -- 0	WB --	0	EB-- 0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			0			0			0			0			0				0
Override Capacity			0			0			0			0			0				1500

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	245	1	**245**	20	265	**265**	0	257	1	**257**	20	277	1	**277**	-16	261	1	**261**
Left-Through		0							0				0				0	
Through	707	2	282	0	707	282	0	743	2	296	0	743	2	296	0	743	2	296
Through-Right		1							1				1				1	
Right	138	0	138	0	138	138	0	145	0	145	0	145	0	145	0	145	0	145
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	200	1	200	39	239	239	0	210	1	210	39	249	1	249	-25	224	1	224
Left-Through		0							0				0				0	
Through	1087	2	**436**	0	1087	**447**	0	1142	2	**458**	0	1142	2	**469**	0	1142	2	**460**
Through-Right		1							1				1				1	
Right	221	0	221	32	253	253	0	232	0	232	32	264	0	264	-26	238	0	238
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	102	1	102	0	102	102	0	107	1	107	0	107	1	107	0	107	1	107
Left-Through		0							0				0				0	
Through	996	2	**498**	84	1080	**540**	27	1074	2	**537**	84	1158	2	**579**	-54	1104	2	**552**
Through-Right		0							0				0				0	
Right	207	1	85	16	223	91	0	218	1	90	16	234	1	96	-10	224	1	94
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	210	1	210	0	210	210	0	221	1	221	0	221	1	221	0	221	1	221
Left-Through		0							0				0				0	
Through	1226	2	**613**	194	1420	**710**	8	1297	2	**649**	194	1491	2	**746**	-154	1337	2	**669**
Through-Right		0							0				0				0	
Right	130	1	30	0	130	11	0	137	1	32	0	137	1	13	0	137	1	25
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		681	*North-South:*		712	*North-South:*			715	*North-South:*			746	*North-South:*			721
	East-West:		1111	*East-West:*		1250	*East-West:*			1186	*East-West:*			1325	*East-West:*			1221
	SUM:		1792	*SUM:*		1962	*SUM:*			1901	*SUM:*			2071	*SUM:*			1942
VOLUME/CAPACITY *(V/C)* RATIO:			1.303			1.427				1.383				1.506				1.295
V/C LESS ATSAC/ATCS ADJUSTMENT:			1.303			1.427				1.383				1.506				1.295
LEVEL OF SERVICE (LOS):			F			F				F				F				F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.123	Δ*v/c* after mitigation:	-0.088
Significant impacted?	YES	Fully mitigated?	YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 SB On/Off, Blucher Ave.	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
5	East-West Street:	Devonshire Street	Projection Year:	2023	Peak Hour:	7:15	Reviewed by:	MAI	Project:	Granada Hills School

No. of Phases			2			2			2			2			2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	0	SB -- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB --	0	WB -- 1	EB--	0	WB-- 1	EB--	0	WB-- 1	EB--	0	WB-- 1	EB--	0	WB-- 1	EB--	0	WB--	1
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	11	1	11	0	11	11	0	12	1	12	0	12	1	12	0	12	1	12
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	296	0	296	0	296	296	0	311	0	311	0	311	0	311	0	311	0	311
Left-Through		1							1				1				1	
Through	167	0	463	0	167	463	0	176	0	487	0	176	0	487	0	176	0	487
Through-Right		0							0				0				0	
Right	708	1	**708**	0	708	**708**	0	744	1	**744**	0	744	1	**744**	0	744	1	**744**
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	1701	2	623	10	1711	626	27	1815	2	**664**	10	1825	2	**667**	-6	1819	2	**665**
Through-Right		1							1				1				1	
Right	168	0	168	0	168	168	0	177	0	177	0	177	0	177	0	177	0	177
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	0	0	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	1413	2	**707**	12	1425	**713**	8	1493	3	498	12	1505	3	502	-10	1495	3	498
Through-Right		0							0				0				0	
Right	138	1	138	0	138	138	0	145	1	145	0	145	1	145	0	145	1	145
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	North-South:		708	North-South:		708	North-South:			744	North-South:			744	North-South:			744
	East-West:		707	East-West:		713	East-West:			664	East-West:			667	East-West:			665
	SUM:		1415	SUM:		1421	SUM:			1408	SUM:			1411	SUM:			1409
VOLUME/CAPACITY (*V/C*) RATIO:			0.943			0.947				0.939				0.941				0.939
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.843**			**0.847**				**0.839**				**0.841**				**0.839**
LEVEL OF SERVICE (LOS):			**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 NB On/Off-Ramps	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
6	East-West Street:	Devonshire Street	Projection Year:	2023	Peak Hour:	7:15	Reviewed by:	MAI	Project:	Granada Hills School

No. of Phases			2			2			2			2			2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	1	SB -- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0	NB--	1	SB-- 0
	EB --	0	WB -- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	342	1	171	6	348	174	0	359	1	180	6	365	1	183	-5	360	1	180
Left-Through		1							1				1				1	
Through	0	0	171	0	0	174	0	0	0	180	0	0	0	183	0	0	0	180
Through-Right		0							0				0				0	
Right	219	1	**219**	0	219	**219**	0	230	1	**230**	0	230	1	**230**	0	230	1	**230**
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	1521	2	**761**	5	1526	**763**	27	1626	3	**542**	5	1631	3	**544**	-3	1628	3	**543**
Through-Right		0							0				0				0	
Right	337	1	252	0	337	250	0	354	1	264	0	354	1	263	0	354	1	264
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	1209	2	469	6	1215	471	8	1279	2	496	6	1285	2	498	-5	1280	2	496
Through-Right		1							1				1				1	
Right	198	0	198	0	198	198	0	208	0	208	0	208	0	208	0	208	0	208
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		219	*North-South:*		219	*North-South:*		230		*North-South:*		230		*North-South:*		230	
	East-West:		761	*East-West:*		763	*East-West:*		542		*East-West:*		544		*East-West:*		543	
	SUM:		980	*SUM:*		982	*SUM:*		772		*SUM:*		774		*SUM:*		773	
VOLUME/CAPACITY *(V/C)* RATIO:			0.653			0.655			0.515				0.516				0.515	
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.553**			**0.555**			**0.415**				**0.416**				**0.415**	
LEVEL OF SERVICE (LOS):			**A**			**A**			**A**				**A**				**A**	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Balboa Avenue	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
7	East-West Street:	San Jose Street	Projection Year:	2023	Peak Hour:	7:30	Reviewed by:	MAI	Project:	Granada Hills School

No. of Phases			2			2			2			2			2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	0	SB -- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0
	EB --	0	WB -- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	60	1	**60**	0	60	**60**	0	63	1	**63**	0	63	1	**63**	0	63	1	**63**
	Left-Through		0							0				0				0	
	Through	755	2	259	0	755	259	0	794	2	272	0	794	2	272	0	794	2	272
	Through-Right		1							1				1				1	
	Right	22	0	22	0	22	22	0	23	0	23	0	23	0	23	0	23	0	23
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	21	1	21	0	21	21	0	22	1	22	0	22	1	22	0	22	1	22
	Left-Through		0							0				0				0	
	Through	1337	2	**466**	24	1361	**474**	0	1405	2	**490**	24	1429	2	**498**	-19	1410	2	**492**
	Through-Right		1							1				1				1	
	Right	62	0	62	0	62	62	0	65	0	65	0	65	0	65	0	65	0	65
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	74	1	74	15	89	89	0	78	1	78	15	93	1	93	-10	83	1	83
	Left-Through		0							0				0				0	
	Through	51	0	**159**	42	93	**240**	0	54	0	**168**	42	96	0	**249**	-27	69	0	**197**
	Through-Right		1							1				1				1	
	Right	108	0	0	39	147	0	0	114	0	0	39	153	0	0	-25	128	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	104	1	**104**	8	112	**112**	0	109	1	**109**	8	117	1	**117**	-6	111	1	**111**
	Left-Through		0							0				0				0	
	Through	90	0	132	0	90	132	0	95	0	139	0	95	0	139	0	95	0	139
	Through-Right		1							1				1				1	
	Right	42	0	0	0	42	0	0	44	0	0	0	44	0	0	0	44	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		526	*North-South:*		534	*North-South:*			553	*North-South:*			561	*North-South:*			555
		East-West:		263	*East-West:*		352	*East-West:*			277	*East-West:*			366	*East-West:*			308
		SUM:		789	*SUM:*		886	*SUM:*			830	*SUM:*			927	*SUM:*			863
VOLUME/CAPACITY *(V/C)* RATIO:				0.526			0.591				0.553				0.618				0.575
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.426**			**0.491**				**0.453**				**0.518**				**0.475**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.065	Δ*v/c* after mitigation:	0.022
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Balboa Avenue	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
8	East-West Street:	Chatsworth Street	Projection Year:	2023	Peak Hour:	7:30	Reviewed by:	MAI	Project:	Granada Hills School

No. of Phases			3			3			3			3			3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB --	0	SB -- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB --	0	WB -- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	59	1	**59**	0	59	**59**	0	62	1	**62**	0	62	1	**62**	0	62	1	**62**
	Left-Through		0							0				0				0	
	Through	737	2	279	10	747	284	0	775	2	293	10	785	2	298	-6	779	2	295
	Through-Right		1							1				1				1	
	Right	99	0	99	5	104	104	0	104	0	104	5	109	0	109	-3	106	0	106
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	36	1	36	0	36	36	0	38	1	38	0	38	1	38	0	38	1	38
	Left-Through		0							0				0				0	
	Through	1155	2	**477**	18	1173	**483**	0	1214	2	**501**	18	1232	2	**507**	-14	1218	2	**503**
	Through-Right		1							1				1				1	
	Right	276	0	276	0	276	276	0	290	0	290	0	290	0	290	0	290	0	290
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	304	1	304	0	304	304	0	320	1	320	0	320	1	320	0	320	1	320
	Left-Through		0							0				0				0	
	Through	758	2	**379**	0	758	**379**	3	800	2	**400**	0	800	2	**400**	0	800	2	**400**
	Through-Right		0							0				0				0	
	Right	111	1	82	0	111	82	0	117	1	86	0	117	1	86	0	117	1	86
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	178	1	178	6	184	184	0	187	1	187	6	193	1	193	-5	188	1	188
	Left-Through		0							0				0				0	
	Through	908	1	**481**	0	908	**481**	1	955	1	**506**	0	955	1	**506**	0	955	1	**506**
	Through-Right		1							1				1				1	
	Right	53	0	53	0	53	53	0	56	0	56	0	56	0	56	0	56	0	56
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		536	North-South:		542	North-South:			563	North-South:			569	North-South:			565
		East-West:		860	East-West:		860	East-West:			906	East-West:			906	East-West:			906
		SUM:		1396	SUM:		1402	SUM:			1469	SUM:			1475	SUM:			1471
VOLUME/CAPACITY (*V/C*) RATIO:				0.980			0.984				1.031				1.035				1.032
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.880**			**0.884**				**0.931**				**0.935**				**0.932**
LEVEL OF SERVICE (LOS):				D			D				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Balboa Avenue	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
9	East-West Street:	SR-118 EB On/Off-Ramps	Projection Year:	2023	Peak Hour:	7:30	Reviewed by:	MAI	Project:	Granada Hills School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	1334	3	**445**	10	1344	**448**	0	1402	3	**467**	10	1412	3	**470**	-6	1406	3	**470**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	1267	3	422	6	1273	425	0	1332	3	444	6	1338	3	447	-5	1333	3	447
Through-Right		0							0				0				0	
Right	476	1	222	0	476	219	0	500	1	233	0	500	1	230	0	500	1	230
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	393	1	254	0	393	257	0	413	1	267	2	415	1	270	0	415	1	270
Left-Through		0							0				0				0	
Through	0	0	**254**	0	0	**257**	0	0	0	**267**	0	0	0	**270**	0	0	0	**270**
Through-Right		0							0				0				0	
Right	369	1	0	6	375	0	0	388	1	0	6	394	1	0	-5	389	1	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		445	*North-South:*		448	*North-South:*			467	*North-South:*			470	*North-South:*			470
	East-West:		254	*East-West:*		257	*East-West:*			267	*East-West:*			270	*East-West:*			270
	SUM:		699	*SUM:*		705	*SUM:*			734	*SUM:*			740	*SUM:*			740
VOLUME/CAPACITY *(V/C)* RATIO:			0.466			0.470				0.489				0.493				0.493
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.366**			**0.370**				**0.389**				**0.393**				**0.393**
LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

	NB --	SB --	EB --	WB --
No. of Phases		2		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	3	3	0
ATSAC-1 or ATSAC+ATCS-2?		2		
Override Capacity		0		

	NB--	SB--	EB--	WB--
No. of Phases		2		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	3	3	0
ATSAC-1 or ATSAC+ATCS-2?		2		
Override Capacity		0		

	NB--	SB--	EB--	WB--
No. of Phases		2		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	3	3	0
ATSAC-1 or ATSAC+ATCS-2?		2		
Override Capacity		0		

	NB--	SB--	EB--	WB--
No. of Phases		2		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	3	3	0
ATSAC-1 or ATSAC+ATCS-2?		2		
Override Capacity		0		

	NB--	SB--	EB--	WB--
No. of Phases		2		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	3	3	0
ATSAC-1 or ATSAC+ATCS-2?		2		
Override Capacity		0		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Balboa Avenue	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	MAI	Date:	10/15/2018
10	East-West Street:	SR-118 WB On/Off-Ramps	Projection Year:	2023	Peak Hour:	7:15	Reviewed by:	MAI	Project:	Granada Hills School

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	263	1	263	5	268	268	0	276	1	276	5	281	1	281	-3	278	1	278
Left-Through		0							0				0				0	
Through	974	3	**325**	5	979	**326**	1	1025	3	**342**	5	1030	3	**343**	-3	1027	3	**342**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	1413	3	471	6	1419	473	0	1485	3	495	6	1491	3	497	-5	1486	3	495
Through-Right		0							0				0				0	
Right	998	1	**998**	0	998	**998**	1	1050	1	**1050**	0	1050	1	**1050**	0	1050	1	**1050**
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through		0							0				0				0	
Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	390	1	**248**	0	390	**248**	0	410	1	**261**	0	410	1	**261**	0	410	1	**261**
Left-Through		0							0				0				0	
Through	5	0	248	0	5	248	0	5	0	261	0	5	0	261	0	5	0	261
Through-Right		0							0				0				0	
Right	349	1	0	0	349	0	0	367	1	0	0	367	1	0	0	367	1	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		1323	*North-South:*		1324	*North-South:*			1392	*North-South:*			1393	*North-South:*			1392
	East-West:		248	*East-West:*		248	*East-West:*			261	*East-West:*			261	*East-West:*			261
	SUM:		1571	*SUM:*		1572	*SUM:*			1653	*SUM:*			1654	*SUM:*			1653
VOLUME/CAPACITY *(V/C)* RATIO:			1.102			1.103				1.160				1.161				1.160
***V/C* LESS ATSAC/ATCS ADJUSTMENT:**			1.002			1.003				1.060				1.061				1.060
LEVEL OF SERVICE (LOS):			F			F				F				F				F

	NB --	SB --	EB --	WB --
No. of Phases				
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?				
Override Capacity				

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	3	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	1	1	1	1	1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

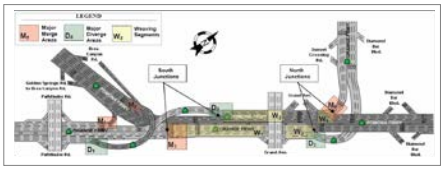
MINAGAR & ASSOCIATES, INC.

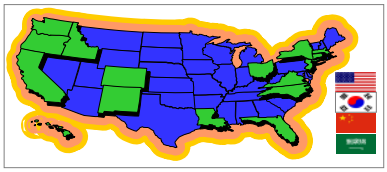
ITS - Traffic/Civil/Electrical Engineering - Transportation Planning - Homeland Security - CEM

2019	Winner of the Orange County Engineering Council's Outstanding Service Award
2016	Winner of the ASCE's Outstanding Civil Engineer in the Private Sector Award in the State of California
2016	Winner of the ASCE Los Angeles Section's Outstanding Civil Engineer in the Private Sector Award
2016	Winner of the ASCE Orange County Chapter's Outstanding Civil Engineer in the Private Sector Award
2016	Certificate of Recognition for Dedication to Support the ELTP Program by Los Angeles County MTA/Metro
2016	Winner of the Orange County Engineering Council's Outstanding Engineering Service Award
2015	Orange County Business Journal's 2015 Excellence in Entrepreneurship Award Nominee
2014	Orange County Business Journal's 2014 Excellence in Entrepreneurship Award Nominee
2012	Winner of Cal-EPA/California Air Resources Board's Cool California Climate Leader
2011	Award of Excellence in Service by Los Angeles County MTA/Metro in the County of Los Angeles
2011	Award of Excellence in Service by Los Angeles County MTA/Metro in the County of Los Angeles
2010	Award of Excellence in Service by Los Angeles County MTA/Metro in the County of Los Angeles
2009	Winner of the ASCE's Outstanding Private Sector Civil Engineering Project in Metropolitan Los Angeles
2009	Winner of the Caltrans' 2009 Excellence in Transportation Award in the State of California
2007	Winner of the ASCE's Outstanding Public/Private Sector Civil Engineering Project in Metropolitan Los Angeles
2005	Winner of the APWA's Best Traffic Congestion Mitigation Project of the Year in Southern California
2004	Top Nominee of Transportation Foundation's Highway Management Program in the State of California
2003	Winner of the PTI's Best Transportation Technology Solutions Award in the United States
2002	Winner of the ITS-CA's Best Return on Investment Project Award in the State of California
2000	Award of Excellence in Service by Los Angeles County MTA/Metro in the County of Los Angeles

Celebrating 26 Years of Planning & Engineering Excellence

- Traffic Engineering
- Transportation Planning
- ITS (Intelligent Transportation Systems)
- Civil/Electrical Engineering
- Homeland Security
- Construction Engineering Management





MINAGAR & ASSOCIATES, INC.
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CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

17081 Devonshire Street
DOT Case № SFV18-47719

Date: March 14, 2019

To: Courtney Shum, City Planner
Department of City Planning

From: Vicente Cordero, Transportation Engineer
Department of Transportation

Subject: TRANSPORTATION IMPACT ASSESSMENT FOR DIR-2018-7111-SPR
GRANADA HILLS TK-12 CHARTER SCHOOL AT 17081 DEVONSHIRE STREET

The Department of Transportation (DOT) has completed an assessment of transportation impacts for the Devonshire campus of Granada Hills Charter School (GHCS) in the Granada Hills-Knollwood Community Plan Area. This assessment included a review of a professional Transportation Impact Study (TIS) prepared by Minagar & Associates, Inc., dated March 11, 2019, which analyzed the significance of project-related impacts on transportation infrastructure in terms of the net change to the volume-to-capacity (v/c) ratios against baseline conditions and compared to DOT's established threshold standards.

DOT verified the ten intersections in the TIS were consistently analyzed pursuant to a scoping agreement between DOT and the consultant executed on January 10, 2019, and conducted independent field studies and research to validate the supporting data collected. The TIS adequately evaluated potential project-related transportation impacts to the surrounding region and found two of the studied intersections to be significantly impacted, which may be mitigated below the threshold of significance as described below.

DISCUSSION AND FINDINGS

A. Project Description

The proposed project consists of the development and expansion of the Devonshire Campus of Granada Hills Charter School which will increase enrollment of the existing high school to 500 students and provide a new TK-8 school with an enrollment of 1,425 students for a grand total of 1,925 students at this campus. This site currently operates as two unaffiliated schools including the existing 360-student iGranada high school component of GHCS, and Valor Academy, a 400 student K-5 elementary charter school that plans to relocate to North Hills (see CPC-2018-6009-CU-F-SPR).

GHCS currently operates school buses to shuttle students between the Devonshire campus and the main high school campus at 10535 Zelzah Avenue at regular intervals between 8 am and 3 pm, which will continue and be expanded as needed to accommodate student growth. Development of the Devonshire campus is expected to be completed and reach full occupancy by year 2023.

B. Trip Generation

The proposed project is estimated to generate a net increase of up to 2,329 daily trips, a net increase of up to 720 a.m. peak hour trips and a net increase of up to 194 p.m. peak hour trips. The trip generation estimates are based on formulas published by the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition, 2017. The trip generation table is included in **Attachment 1**.

C. Study Methodology

The TIS analyzed ten intersections for impacts using the Critical Movement Analysis as published by the Transportation Research Board. The TIS analyzed impacts under two scenarios:

Year 2018 (Existing) conditions

Year 2023 (Future) Projected Conditions

DOT verified that volume-to-capacity (*v/c*) ratios and levels of service (LOS) analyzed were correctly calculated. For the future baseline projection analysis, the findings accounted for other known developments in evaluating potential cumulative impacts.

D. Findings

Using DOT's traffic impact criteria[1], the TIS found that the proposed project will produce a significant transportation impact at two signalized intersections: Balboa Boulevard & Devonshire Street and Amestoy Avenue & Devonshire Street. These findings are summarized in **Attachment 3**, which shows the existing and project-related impacts in the study area for each study scenario.

LADOT RECOMMENDATIONS

The Department of Transportation recommends the following measures be adopted as conditions of project approval:

A. CEQA Mitigation Measures

The following measures are recommended to mitigate transportation impacts to less-than-significant levels, as summarized in **Attachment 4**.

1. Prepare an annual Transportation Demand Management (TDM) plan to reduce vehicle trips to and from the school by encouraging non-vehicular modes of travel including walking, biking, scooters and similar; by implementing a campus-wide rideshare program to encourage and incentivize families living near one another to utilize ridesharing to the greatest practical extent; and through a staggered ball schedule to offset elementary, middle and high school student arrival times to reduce the concentration of trips arriving at the school during the morning peak hour. This plan will be reviewed and approved by DOT at the start of each school year.

[1] Per DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.010 or more when the final ("with project") Level of Service (LOS) is E or F; an increase of 0.020 or more when the final LOS is D; or an increase of 0.040 or more when the final LOS is C.

To ensure effectiveness of the TDM plan, an annual monitoring report shall be prepared and submitted to the Department of City Planning and LADOT by December 10th of each year. This report shall survey Measures Of Effectiveness (MOEs) established in the TDM plan. The survey(s) conducted shall take place no earlier than the third week of school and no later than November 15th. Counts of vehicle and/or person trips should be conducted indepentently without prior knowledge by students, parents or school staff, and should not take place on a Friday or any day immediately before or after a school holiday.

If the MOEs in the report exceed the TDM plan's goals, a supplemental report shall be prepared and submitted by May 31st with new survey(s) conducted by April 30th or 30 days before the last day of school (whichever is earlier). If the MOEs in the supplemental report continue to exceed TDM plan limits, a supplemental assessment of traffic impacts may be required.

If the MOEs in annual reports demonstrate that GHCS has met or exceeded the TDM goals for five (5) consecutive years, subsequent reports will not be required.

2. Implement a Tow Away No Stopping zone on the north Side of Devonshire Street between Amestoy Avenue and Balboa Boulevard during the student drop-off period on school days between 7:00 AM and 5:00 PM, or as subsequently determined by LADOT District Operations to provide for the safe and orderly access of the campus by vehicles while protecting protection for pedestrians and other vulnerable road users. This measure would necessitate the restriction of approximately 22 on-street parking spaces including 6 spaces that are not adjacent to project frontage.

3. A sign restricting left turns between 7 am and 9 am facing traffic exiting the driveway on Amestoy Avenue shall be posted in the public right of way.

   Roadway improvements shall be guaranteed prior to the issuance of any building permit for the project, and shall be completed to the satisfaction of DOT prior to the issuance of the certificate of occupancy.

B. Construction Impacts

A work site traffic control plan should be approved by DOT's plan processing unit prior to the start of construction. The plan should show the location of any roadway or sidewalk closures, detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. Construction traffic should be limited to off-peak hours.

C. Street Dedications and Improvements

With respect to Municipal Code Section 12.37 and the Transportation Element of the General Plan, DOT has the following comments:

1. Along project frontage, Devonshire Street currently has a 50-foot half right-of-way containing a 40-foot half roadway, a curb, a gutter and a sidewalk. This street is a designated Boulevard II, which has a standard 55-foot half right-of-way and a 40-foot half-roadway. To meet the city's mobility needs, a five foot dedication is recommended as consistent with the goals and purpose of the 2035 Mobility Plan.

2. Along project frontage, Amestoy Avenue currently has a 30-foot half right-of-way containing a 20-foot half roadway, a curb, a gutter and a sidewalk. This street is a

designated Collector Street, which has a standard 33-foot half right-of-way and a 20-foot half-roadway. To meet the city's mobility needs, a three foot dedication is recommended as consistent with the goals and purpose of the 2035 Mobility Plan.

Notwithstanding the above recommendations, the Bureau of Engineering (BOE) determines the exact applicable street standards along with any other required improvements specified by the Los Angeles Municipal Code. Improvements shall be guaranteed before any building permit is issued for this project, and completed to the satisfaction of DOT and BOE before any certificate of occupancy is issued.

D. Driveways and Internal Circulation

This assessment does not constitute an approval of project access, driveways or on-site vehicle circulation.

A parking area and driveway plan submitted with the TIS (see **Attachment 2**) was found to be acceptable to DOT. Ingress for grades TK-8 shall enter using the easterly driveway on Devonshire Street. Removable bollards limiting the effective width of this driveway and the southerly driveway on Amestoy Avenue to 16 feet will be used during normal operation.

Final DOT approval is normally required prior to the issuance of building permits and entails fulfillment or guarantee of all applicable conditions of approval, and payment of fees required by LAMC Section 19.15 to the DOT Developer Services at 6262 Van Nuys Blvd., suite 320.

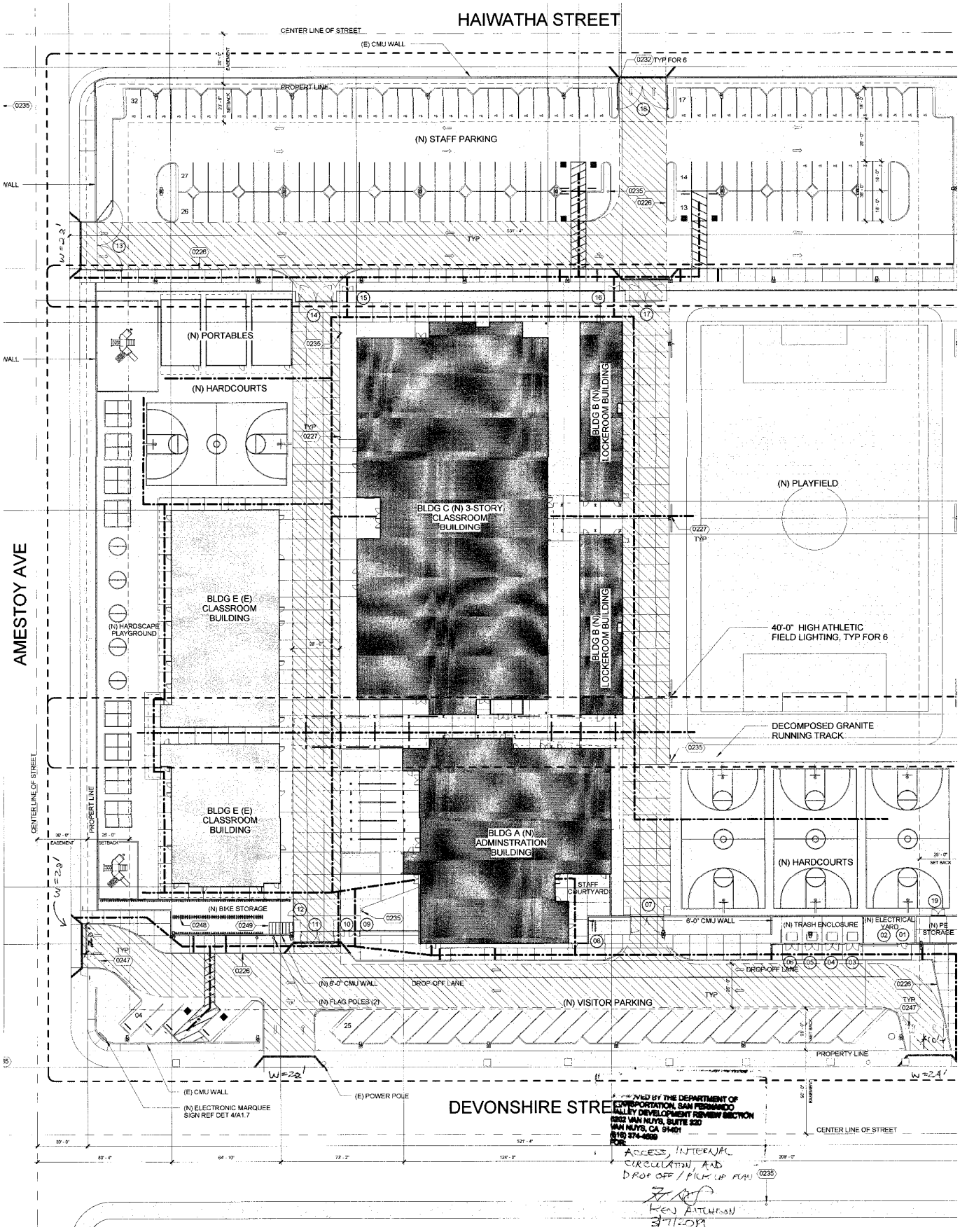
If you have any questions, you may contact Ken Aitchison of my staff at 818-374-4692.

c: Hannah Lee, Twelfth Council District
Ken Firoozmand, DOT District Operations
Quyen Phan, BOE Land Development Group
Ali Nahass, BOE Valley District
Fred Minagar, Minagar & Associates, Inc.
Greg Brendel, The Brendel Companies
Granada Hills Charter

Attachment 1: Project Trip Generation Estimates

Land Use Description	Size	Unit	Daily Trips	a.m. Peak Trips In	a.m. Peak Trips Out	a.m. Peak Trips Total	p.m. Peak Trips In	p.m. Peak Trips Out	p.m. Peak Trips Total
Proposed Uses:									
Elementary School	975	Students	1843	351	302	653	80	86	166
Middle School	450	Students	958	140	122	262	37	39	76
High School	500	Students	1015	175	85	260	34	36	70
Existing Uses to be Removed:									
Elementary School	400	Students	-756	-144	-124	-268	-33	-35	-68
High School	360	Students	-731	-126	-61	-187	-24	-26	-50
Net Project Totals:			**2329**	**396**	**324**	**720**	**94**	**100**	**194**

Attachment 2: Parking Area and Driveway Plan



Attachment 3: Volume to Capacity Ratios (v/c) and Levels of Service (LOS)

Intersection	2019 conditions		2019 + Project		Project Impact	2023, no project		2023 + Project		Project Impact
	v/c	LOS	v/c	LOS	Δv/c	v/c	LOS	v/c	LOS	Δv/c
Devonshire St & Zelzah Av	0.765	C	0.769	C	0.004	0.810	D	0.815	D	0.005
Devonshire St & Louise Av	0.709	C	0.723	C	0.014	0.752	C	0.767	C	0.015
Devonshire St & Amestoy Av	0.596	A	0.707	C	**0.111***	0.634	B	0.745	C	**0.111***
Devonshire St & Balboa Bl	1.203	F	1.327	F	**0.124***	1.283	F	1.406	F	**0.123***
Devonshire St & I-405 SB Ramps	0.843	D	0.847	D	0.004	0.839	D	0.841	D	0.002
Devonshire St & I-405 NB Ramps	0.553	A	0.555	A	0.002	0.415	A	0.416	A	0.001
Balboa Bl & San Jose St	0.426	A	0.491	A	0.065	0.453	A	0.518	A	0.065
Balboa Bl & Chatsworth St	0.880	D	0.884	D	0.004	0.931	E	0.935	E	0.004
Balboa Bl & SR-118 EB Ramps	0.366	A	0.370	A	0.004	0.389	A	0.393	A	0.004
Balboa Bl & SR-118 EB Ramps	1.002	F	1.003	F	0.001	1.060	F	1.061	F	0.001

* Denotes significant impact

Attachment 4: Final Project Impacts with Mitigation

Impacted Intersection	2018, Baseline		2018 + Project		Project Impact	2018 + Mitigated		Final Impact	Significant?
	v/c	LOS	v/c	LOS	Δv/c	v/c	LOS	Δv/c	
Balboa Bl & Amestoy Av	0.596	A	0.707	C	0.111	0.632	B	0.036	**NO**
Balboa Bl & Devonshire St	1.203	F	1.327	F	0.124	1.115	F	-0.088	**NO**

Impacted Intersection	2023, Baseline		2023 + Project		Project Impact	2023 + Mitigated		Final Impact	Significant?
	v/c	LOS	v/c	LOS	Δv/c	v/c	LOS	Δv/c	
Balboa Bl & Amestoy Av	0.634	B	0.745	C	0.111	0.670	B	0.036	**NO**
Balboa Bl & Devonshire St	1.283	F	1.406	F	0.123	1.195	F	-0.088	**NO**