

APPENDIX L: TRAFFIC IMPACT ANALYSIS & SUPPLEMENTAL VMT ANALYSIS

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TRANSPORTATION IMPACT STUDY
COVINA BOWL SPECIFIC PLAN PROJECT
City of Covina, California
July 1, 2020

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 ICU and HCM Data Worksheets – Weekday AM and PM Peak Hours

TRANSPORTATION IMPACT STUDY

COVINA BOWL SPECIFIC PLAN PROJECT

City of Covina, California
July 1, 2020

1.0 INTRODUCTION

This transportation analysis has been conducted to identify and evaluate the potential transportation impacts associated with the Covina Bowl Specific Plan project in the City of Covina, California. The Specific Plan consists of four separate planning areas, with the near-term development proposed within Planning Areas 1 and 2 of the Covina Bowl site. The project site location and general vicinity are shown in *Figure 1-1*.

The transportation analysis follows the City of Covina transportation study guidelines¹. This transportation analysis evaluates potential project-related impacts at 13 study intersections in the vicinity of the project site. The study intersections were determined in consultation with City of Covina staff. The analysis includes the near-term development within Planning Areas 1 and 2 of the Covina Bowl site as well as the full build-out of the four planning areas of the Specific Plan. The Intersection Capacity Utilization (ICU) method was used to determine volume-to-capacity ratios and corresponding Levels of Service for the signalized study intersections while the analysis method from the *Highway Capacity Manual*² (HCM) was utilized to determine intersection delay values and corresponding Levels of Service for the unsignalized study intersection. While the project site is situated within the jurisdiction of the City of Covina, the transportation study also evaluates potential transportation impacts at study intersections located in the City of West Covina and the unincorporated areas of the County of Los Angeles. Potential impacts to study intersections located in jurisdictions outside of the City of Covina were determined using the criteria of the respective jurisdiction and intersections shared between jurisdictions were determined using the more stringent criteria of either jurisdiction.

This study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast traffic volumes from the near-term development within Planning Areas 1 and 2, (iii) forecasts future (year 2024) traffic volumes without the near-term development project, (iv) forecasts future (year 2024) traffic volumes with the near-term development within Planning Areas 1 and 2, (v) determines proposed near-term project-related impacts, and (vi) recommends mitigation measures, where necessary. For the future build-out of the Specific Plan, this study also (vii) includes existing traffic volumes with the forecast traffic volumes from build-out of all

¹ *Traffic Impact Analysis Guidelines*, City of Covina, May 2014.

² *Highway Capacity Manual 6th Edition*, Transportation Research Board of the National Academies of Sciences-Engineering-Medicine, 2016.

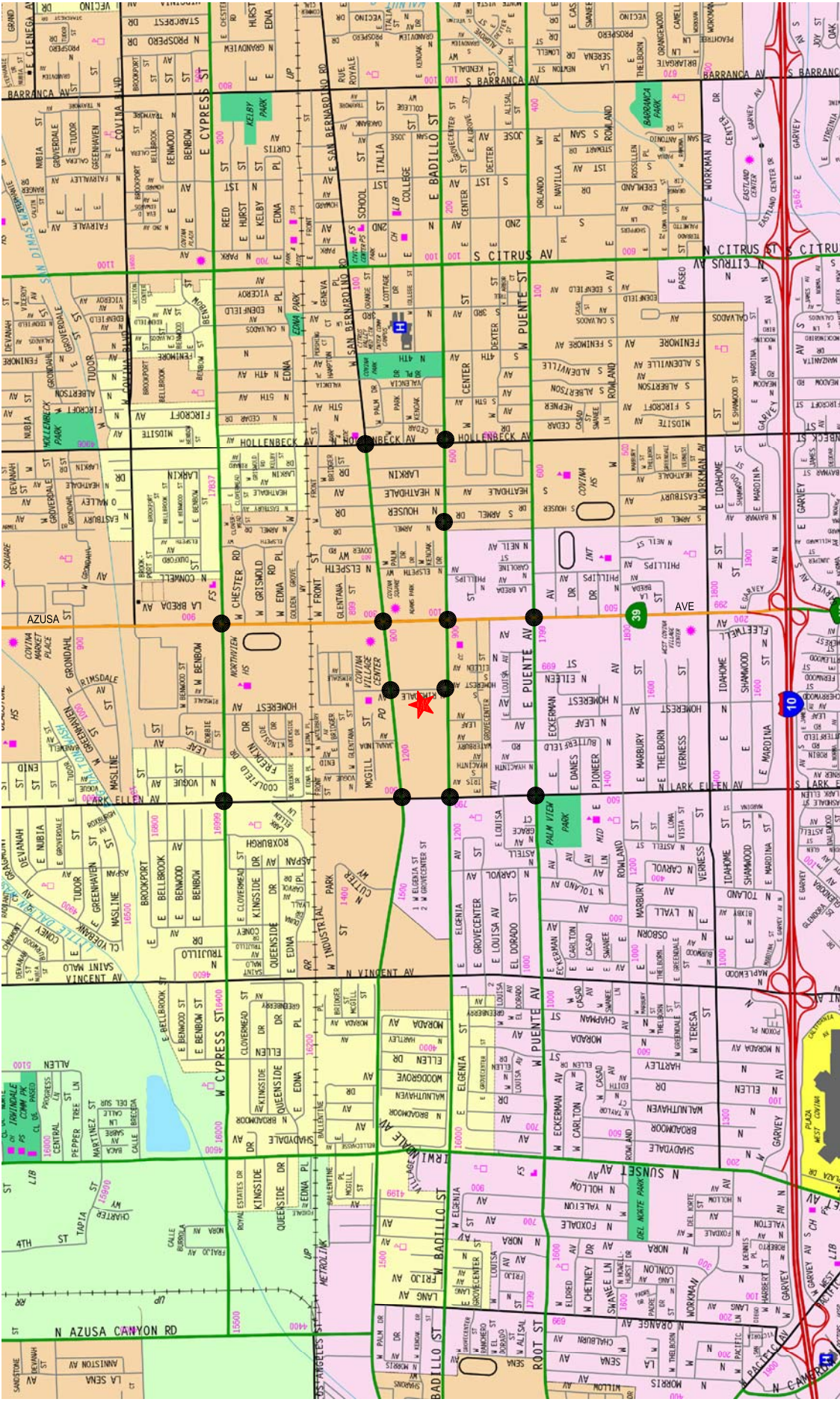


FIGURE 1-1
VICINITY MAP

MAP SOURCE: RAND McNALLY & COMPANY
 PROJECT SITE
 STUDY INTERSECTION

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four planning areas within the Covina Bowl Specific Plan, (viii) forecasts future (year 2040) traffic volumes without the project, (ix) forecasts future (year 2040) traffic volumes with build-out of all four planning areas within the Covina Bowl Specific Plan, (x) determines proposed project-related impacts from build-out of all four planning areas within the Covina Bowl Specific Plan, including the proportion of the impacts resulting from build-out of Planning Areas 1 and 2 versus Planning Areas 3 and 4, and (xi) recommends mitigation measures, where necessary.

1.1 Study Area

Based on direction from City of Covina staff, a total of 13 study intersections have been identified for evaluation during the weekday morning and afternoon peak hours. These study intersections provide local access to the study area and define the extent of the boundaries for this transportation impact analysis. Further discussion of the existing street system and study area is provided in Section 5.0 herein.

The general location of the project in relation to the study intersections and surrounding street system is presented in *Figure 1-1*. The transportation analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the proposed project as defined by the Lead Agency. In traffic engineering practice, the study area generally includes those intersections that are:

- a. Immediately adjacent or in close proximity to the project site;
- b. In the vicinity of the project site that are documented to have current or projected future adverse operational issues; and
- c. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements.

The locations selected for analysis were based on the above criteria, the forecast Covina Bowl Specific Plan peak hour vehicle trip generation, anticipated distribution of project vehicular trips, and the existing nearby intersection and corridor operations. The 13 study intersections included for analysis are as follows:

- 1. Lark Ellen Avenue/Cypress Street
- 2. Lark Ellen Avenue/San Bernardino Road
- 3. Lark Ellen Avenue/Badillo Street
- 4. Lark Ellen Avenue/Puente Avenue
- 5. Rimsdale Avenue/San Bernardino Road
- 6. Rimsdale Avenue/Badillo Street
- 7. Azusa Avenue/Cypress Street
- 8. Azusa Avenue/San Bernardino Road
- 9. Azusa Avenue/Badillo Street

10. Azusa Avenue/Puente Avenue
11. Armel Drive/Badillo Street (unsignalized)
12. Hollenbeck Avenue/San Bernardino Road
13. Hollenbeck Avenue/Badillo Street

Twelve of the 13 study intersections selected for analysis are currently controlled by traffic signals. It should be noted that additional intersections in the project vicinity were not selected for analysis because they do not satisfy the aforementioned criteria and therefore are not anticipated to experience significant impacts due to project-generated traffic volumes.

1.2 Overview of Senate Bill 743

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743 (Steinberg, 2013). Among other things, SB 743 creates a process to change the methodology to analyze transportation impacts under CEQA (Public Resources Code section 21000 and following), which could include analysis based on project vehicle miles traveled (VMT) rather than impacts to intersection Level of Service. On December 30, 2013, the State of California Governor's Office of Planning and Research (OPR) released a preliminary evaluation of alternative methods of transportation analysis. The intent of the original guidance documentation was geared first towards projects located within areas that are designated as transit priority areas, to be followed by other areas of the State. OPR issued other draft discussion documents in March 2015 and January 2016, suggesting some new revisions to the State CEQA Guidelines. In November 2017, OPR submitted the proposed amendments to the CEQA Guidelines to the State's Natural Resources Agency (that include a proposed new Guidelines section 15064.3 which governs how VMT-based analyses of potential traffic impacts should be conducted). On January 26, 2018, the Natural Resources Agency published a Notice of Rulemaking, commencing the formal rulemaking process for the amendments to the CEQA Guidelines. OPR has issued final revisions to the state CEQA Guidelines in order to implement the CEQA traffic analysis component of SB 743, and cities, like Covina, have adopted resolutions to update their transportation analysis guidelines by July 1, 2020 to be in compliance.

1.3 Congestion Management Program Status

The Congestion Management Program (CMP) was previously a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990 that primarily utilized a level of service (LOS) performance metric. Senate Bill 743 contains amendments to current congestion management law that allows counties to opt out of the LOS standards that would otherwise apply in areas where CMPs are utilized. Pursuant to California Government Code §65088.3, local jurisdictions may opt out of the CMP requirement without penalty if a majority of the local jurisdictions representing a majority of the County's population formally adopt resolutions requesting to opt out of the program. As of October 2019, the majority of local agencies representing the majority of the County's population have adopted resolutions to opt out of the program. Therefore, the CMP is no longer applicable in Los Angeles County.

2.0 PROJECT DESCRIPTION

2.1 Site Location

The Covina Bowl Specific Plan area totals approximately 7.5 acres and comprises four separate planning areas located in the western portion of the City of Covina, California. The Specific Plan is generally bounded by San Bernardino Road to the north, Badillo Street to the south, Rimsdale Avenue to the east and existing multi-family residential uses to the west. An aerial photograph of the existing site illustrating the Specific Plan boundary and the near-term development site area is contained in *Figure 2-1*. The corresponding addresses and existing/prior land uses for each of the planning areas are summarized below.

2.2 Existing Project Site

2.2.1 Planning Areas 1 and 2

The Covina Bowl near-term development site consists of three parcels identified in Planning Areas 1 and 2 and totals approximately 5.5 acres. One parcel (1060 West San Bernardino Road) is split between Planning Areas 1 and 2 and is currently developed with a vacant single-story building previously utilized by the Covina Bowl until it ceased operations in 2017. Planning Area 2 includes a former 2,994 square-foot day care center with a site address of 1103 West Badillo Street, and an existing 1,646 square-foot Church building located at 1111 West Badillo Street. All existing buildings and surface parking lots, with the exception of the former Covina Bowl building, will be removed in order to accommodate the proposed development.

2.2.2 Planning Area 3

Planning Area 3 consists of 0.35 acres of the Covina Bowl Specific Plan area and has a site address of 1085 West Badillo Street. This planning area is currently developed with a 4,175 square-foot office use currently occupied by the Nuevo Amanecer Latino Children Services.

2.2.3 Planning Area 4

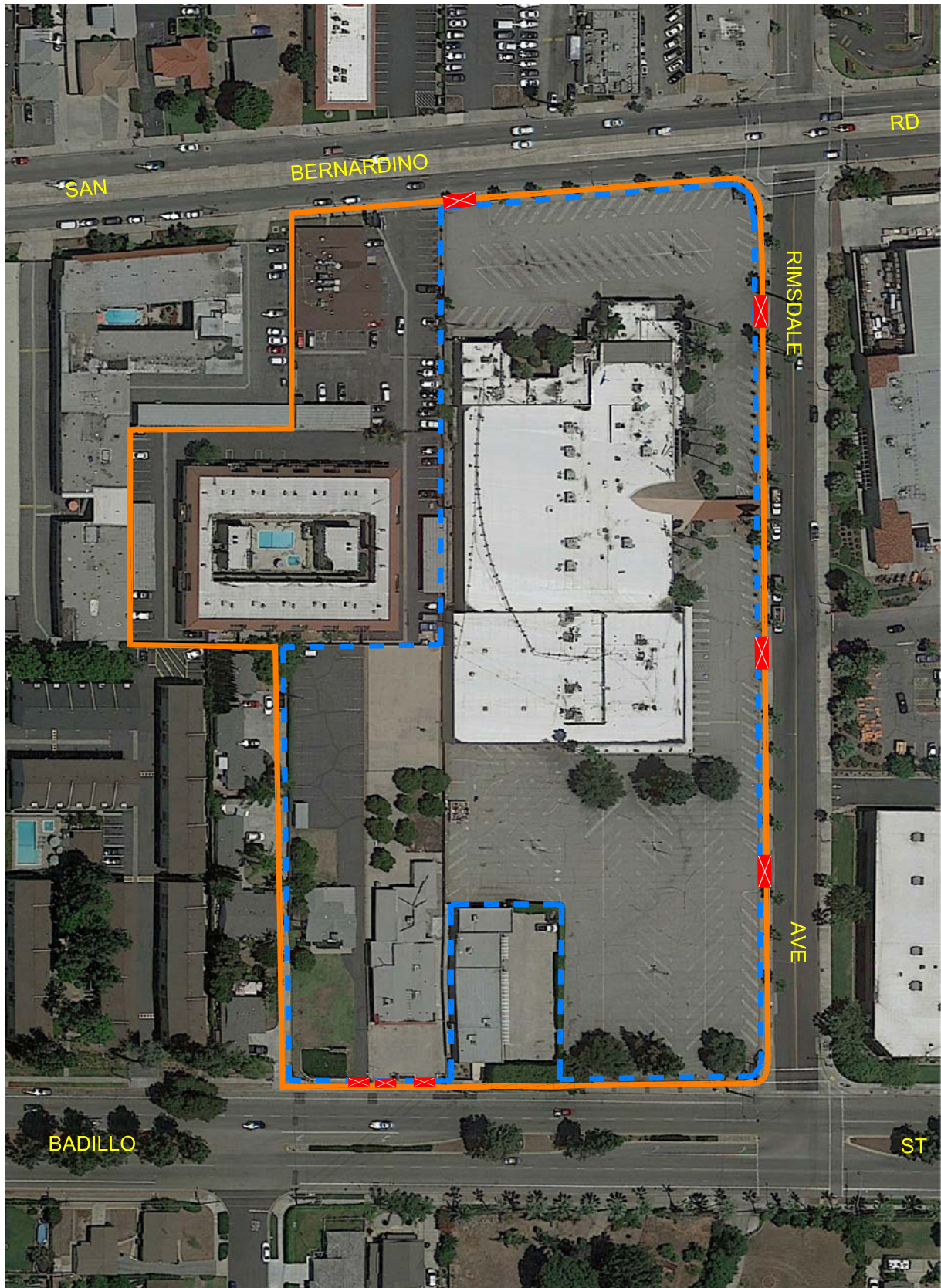
Planning Area 4 consists of 1.71 acres of the Covina Bowl Specific Plan area and has a site address of 1118 West San Bernardino Road. This parcel is currently split into two different zoning categories and is currently developed with an approximately 4,650 square-foot restaurant use (i.e., Mar Y Tierra) and a two-story residential apartment complex (i.e., Continental Garden Apartments) housing 31 dwelling units.

2.3 Proposed Project Description

2.3.1 Planning Areas 1 and 2

The proposed project for Planning Areas 1 and 2 consists of the planned construction of up to 132 residential townhome units and restoration of the original 1955 Covina Bowl building for re-occupancy of approximately 12,000 square feet of commercial use (i.e., 11,050 square-foot office and 950 square-foot coffee shop space). On-site amenities for the residents include an outdoor lawn bowling area, outdoor dining barbeque area, and a tot lot area which includes playgrounds and seating. Additionally, the project also includes the proposed partial

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MAP SOURCE: GOOGLE EARTH PRO



DEVELOPMENT SITE



EXISTING DRIVEWAY



SPECIFIC PLAN PROJECT AREA

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 2-1
AERIAL PHOTOGRAPH
OF EXISTING SITE
COVINA BOWL SPECIFIC PLAN PROJECT

encroachment into the existing North Rimsdale Avenue right-of-way (i.e., along the easterly property frontage) to allow for the addition of angled on-street parking spaces.

Vehicular access to Planning Areas 1 and 2 is planned to be provided via a total of five (5) driveways: one (1) driveway on San Bernardino Road, three (3) driveways on Rimsdale Avenue, and one (1) driveway on Badillo Street. The build-out and occupancy of Planning Areas 1 and 2 is anticipated by the year 2024. The conceptual project site plan for the Covina Bowl development site for Planning Areas 1 and 2 is illustrated in **Figure 2-2**.

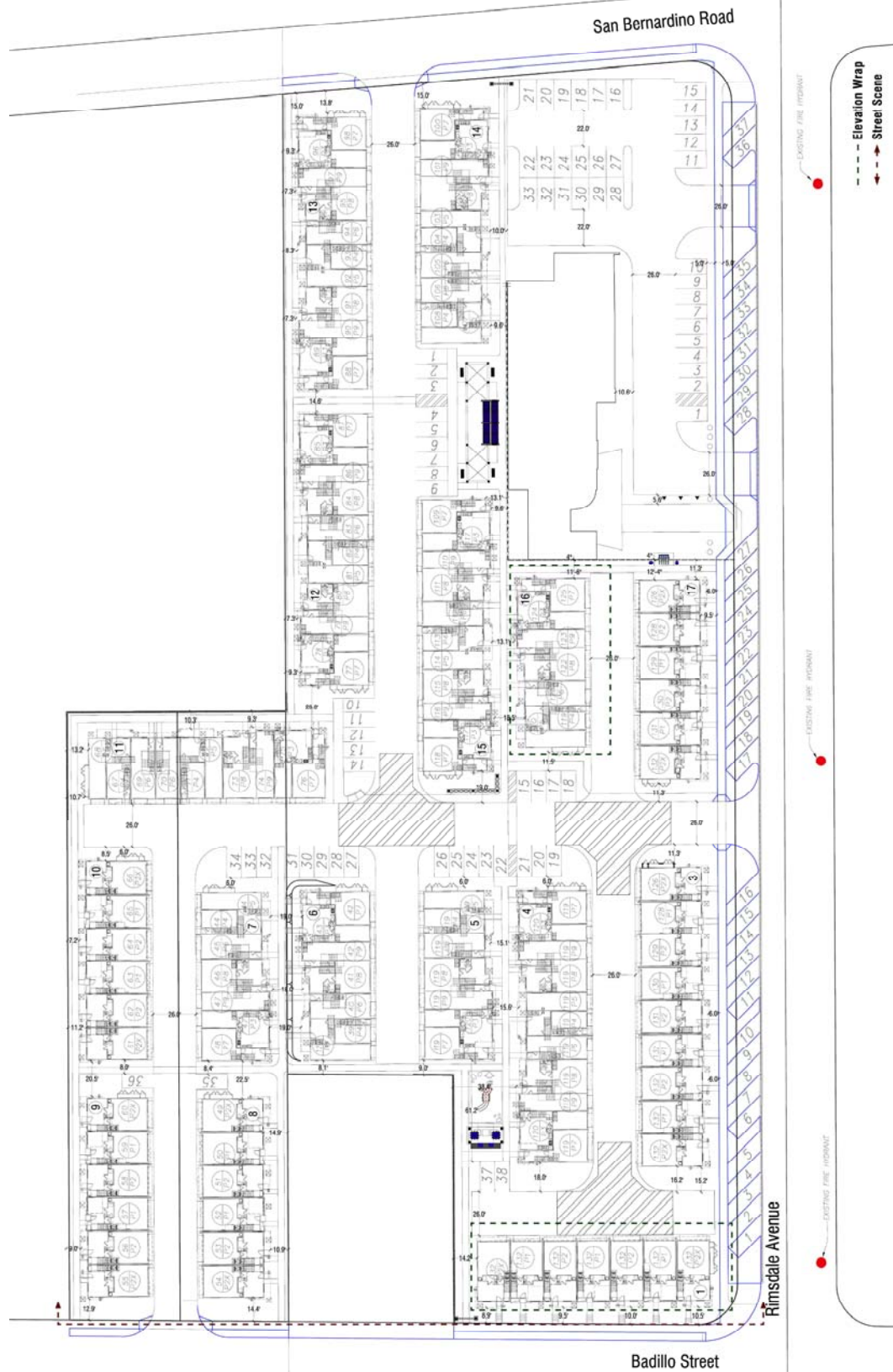
2.3.2 Planning Area 3

While no specific development is proposed at this time for Planning Area 3, the maximum potential build-out of Planning Area 3 is included as part of the Specific Plan build-out (Year 2040) condition. Planning Area 3 includes the removal of the existing office space for the potential development of an equivalent 4,175 square-foot retail space. Vehicular access to Planning Area 3 is planned to be provided via one (1) driveway on Badillo Street. **Figure 2-3** illustrates each of the four Planning areas within the Specific Plan area, including Planning Area 3.

2.3.3 Planning Area 4

While no specific development is proposed at this time for Planning Area 4, the maximum potential build-out of Planning Area 4 is included as part of the Specific Plan build-out (Year 2040) condition. Planning Area 4 includes the removal of the existing apartment building and restaurant use for the potential development of 37,244 square feet of retail space. Vehicular access to Planning Area 4 is planned to be provided via one (1) driveway on San Bernardino Road. **Figure 2-3** also illustrates the Planning Area 4 boundary within the Specific Plan area.

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SOURCE: WHA

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 2-2 SITE PLAN

COVINA BOWL SPECIFIC PLAN PROJECT



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FIGURE 2-3 PROJECT PLANNING AREAS

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COVINA BOWL SPECIFIC PLAN PROJECT

3.0 SITE ACCESS AND CIRCULATION

The site access scheme for the proposed near-term development of Planning Areas 1 and 2 is displayed in *Figure 2-2*. Existing and proposed site access and circulation for each of the four planning areas are discussed in the following subsections.

3.1 Existing Site Access

Vehicular access to the existing site for Planning Areas 1 and 2 is currently provided via a total of seven (7) existing curb cuts along the development site frontages: one (1) driveway on San Bernardino Road, three (3) driveways on Rimsdale Avenue, and three (3) driveways on Badillo Street. An aerial photograph of the existing development site driveways and the adjacent roadways is presented in *Figure 2-1*.

3.2 Proposed Vehicular Site Access

3.2.1 Planning Areas 1 and 2

Vehicular access to Planning Areas 1 and 2 would be provided via five (5) access driveways: one (1) driveway on San Bernardino Road along the northerly property frontage, three (3) driveways on Rimsdale Avenue along the easterly property frontage, and one (1) driveway on Badillo Street along the southerly property frontage. The proposed site access scheme for the near-term development within Planning Areas 1 and 2 is displayed in *Figure 2-2*. A description of the project site driveways is provided in the following paragraphs. The number of vehicles forecast with development of the project site is discussed later in Section 8.0.

- *San Bernardino Road Driveway:*

This new driveway will be located on the south side of San Bernardino Road along the northerly property frontage. The San Bernardino Road driveway is planned to provide access to the residential units within the development site. Full access is planned to be provided (i.e., right-turn and left-turn ingress and egress turning movements) at the San Bernardino Road driveway. The proposed San Bernardino Road driveway will be constructed to City of Covina design standards.

- *Rimsdale Avenue Driveways – Commercial Use:*

The two northerly driveways along the west side of Rimsdale Avenue will provide access to the surface parking lot for the proposed commercial use planned within the restored Covina Bowl building. These two Rimsdale Avenue driveways will provide full access (i.e., right-turn and left-turn ingress and egress turning movements) to/from the surface parking lot.

- *Rimsdale Avenue Driveway – Residential Use:*

The southerly driveway along the west side of Rimsdale Avenue will provide access to the internal private drive aisles which directly access the private garages of the residential units and surface guest parking spaces. This driveway is planned to provide full access

(i.e., right-turn and left-turn ingress and egress turning movements). All of the Rimsdale Avenue driveways will be constructed to City of Covina design standards.

- *Badillo Street Driveway:*

The Badillo Street driveway will provide limited access to the internal private drive aisles of the residential units. Due to the existing raised median island on Badillo Street along the southerly project frontage, limited access (i.e., right-turn ingress and right-turn egress turning movements only) is planned to be provided at the Badillo Street driveway. The Badillo Street driveway will be constructed to City of Covina design standards.

3.2.2 Planning Area 3

While no specific development is proposed at this time for Planning Area 3, it is assumed that vehicular access for Planning Area 3 will be provided via a single driveway on Badillo Street. Due to the existing raised median island on Badillo Street, limited access (i.e., right-turn ingress and right-turn egress turning movements only) is expected at the Badillo Street driveway for Planning Area 3.

3.2.3 Planning Area 4

While no specific development is proposed at this time for Planning Area 4, it is assumed that vehicular access to Planning Area 4 will be provided via a single driveway on San Bernardino Road. Full access is expected to be provided (i.e., right-turn and left-turn ingress and egress turning movements) at the San Bernardino Road driveway.

3.3 Pedestrian Access

The project has been designed to encourage pedestrian activity and walking as a transportation mode³. Walkability is a term for the extent to which walking is readily available as a safe, connected, accessible and pleasant mode of transport. There are several criteria that are widely accepted as key aspects of the walkability of urban areas that should be satisfied. The underlying principle is that pedestrians should not be delayed, diverted, or placed in danger. The widely accepted characteristics of walkability are as follows:

- **Connectivity:** People can walk from one place to another without encountering major obstacles, obstructions, or loss of connectivity.
- **Convivial:** Pedestrian routes are friendly and attractive, and are perceived as such by pedestrians.

³ For example, refer to <http://www.walkscore.com/>, which generates a walkability score of approximately 70 (Very Walkable) out of 100 for the project site. Walk Score calculates the walkability of an address by locating nearby stores, restaurants, schools, parks, etc. Walk Score measures how easy it is to live a car-lite lifestyle—not how pretty the area is for walking.

- **Conspicuous:** Suitable levels of lighting, visibility and surveillance over its entire length, with high quality delineation and signage.
- **Comfortable:** High quality and well-maintained footpaths of suitable widths, attractive landscaping and architecture, shelter and rest spaces, and a suitable allocation of space for pedestrians.
- **Convenient:** Walking is a realistic travel choice, partly because of the impact of the other criteria set forth above, but also because walking routes are of a suitable length as a result of land use planning with minimal delays.

A review of the proposed project pedestrian walkway network indicates that these five primary characteristics will be accommodated as part of the proposed project. The project site is planned to provide a combination of landscape and hardscape improvements that facilitate internal accessibility and encourage active transportation. The project site is accessible from nearby commercial uses (e.g., retail, cafes, restaurants, etc.) and other amenities along San Bernardino Road and Badillo Street, as well as nearby public transit along San Bernardino Road and Azusa Avenue.

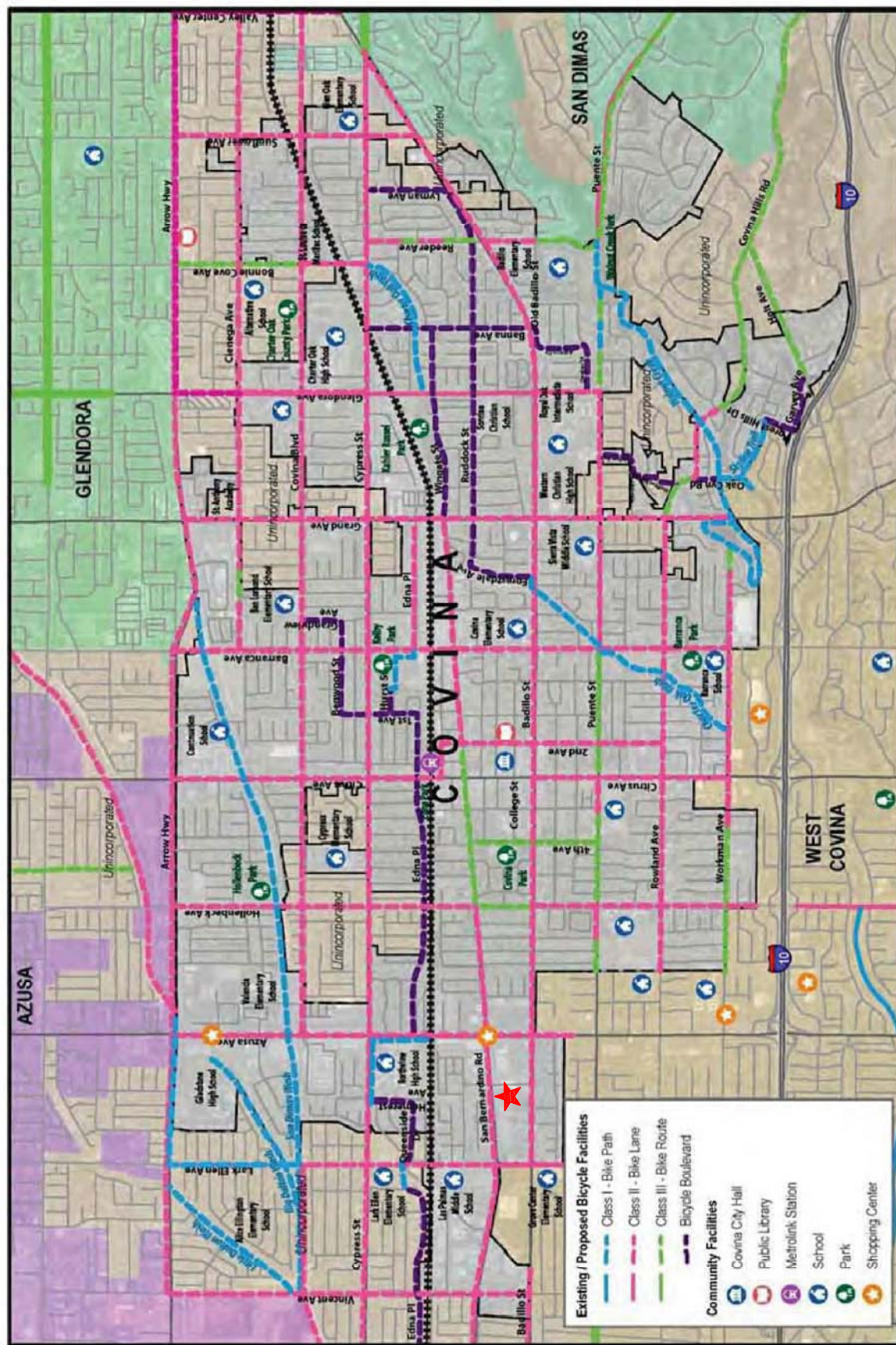
3.4 Bicycle Access

Bicycle access to the proposed Covina Bowl Specific Plan area will be provided by the existing street network. The City of Covina Bicycle Master Plan⁴ proposes a number of bicycle facilities near to or immediately adjacent to the Specific Plan area. The proposed facilities within a quarter-mile radius include:

- San Bernardino Road: Class II Bike Lane west of Hollenbeck Avenue and east of Second Avenue, Class III Bike Route from Hollenbeck Avenue to Second Avenue
- Badillo Street: Class II Bike Lane from Lark Ellen Avenue to Cypress Street

The project is well-located to further facilitate and encourage bicycling as a mode of transportation as these facilities are constructed. The existing and proposed bicycle facilities in the project vicinity are illustrated in **Figure 3-1**. While the project is not required to provide bicycle parking pursuant to the City's Municipal Code, the project will provide bicycle parking in order to promote bicycle trips to and from the commercial component of the project site. Bicycle parking for the residential component of the project site will be accommodated via private garages.

⁴ City of Covina Bicycle Master Plan, Prepared by Alta Planning + Design, September 2011.



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MAP SOURCE: CITY OF COVINA BICYCLE MASTER PLAN, SEPTEMBER 2011



PROJECT SITE

FIGURE 3-1
CITYWIDE BICYCLE NETWORK

4.0 PROJECT PARKING ANALYSIS

For purposes of this parking analysis, the parking supply/demand ratios were analyzed and reviewed for only the near-term project proposed within Planning Areas 1 and 2 of the Covina Bowl Specific Plan area since specific site designs/plans are not yet proposed at this time for the remaining areas of the Specific Plan. As previously mentioned, the near-term development proposed in Planning Areas 1 and 2 consists of the construction of residential townhome units as well as the adaptive office/coffee shop reuse of the former Covina Bowl building.

4.1 City Code Parking Requirements

The City of Covina off-street parking requirements for multi-family residential, general office and coffee shop uses are set forth in Section 17.72.010 (*Off-Street Parking – Space Requirements*) of the Municipal Code. In accordance with the Municipal Code parking regulations, the following parking requirements are applicable to each of the project components proposed within Planning Areas 1 and 2:

- Multiple Family Residential:
 - Bachelor/One-Bedroom units 2.0 parking spaces for each dwelling unit
 - Two-Bedroom units 2.5 parking spaces for each dwelling unit
 - Three-Bedroom units 3.0 parking spaces for each dwelling unit
 - Four-Bedroom units 3.5 parking spaces for each dwelling unit
 - Guest Parking 1.0 parking space for every five units
- Professional Offices: 1.0 parking space for each 250 square feet of gross floor area
- Food/Beverage Establishments:
 - Less than 1,000 sf of floor area 1.0 parking space for each 200 square feet of gross floor area.

Through strict application of the Municipal Code parking regulations noted above, the following parking requirement is calculated for Planning Areas 1 and 2:

Residential Component:

- One-Bedroom units	14 DU	x	2.0 spaces/DU	=	28 spaces
- Two-Bedroom units	24 DU	x	2.5 spaces/DU	=	60 spaces
- Three-Bedroom units	54 DU	x	3.0 spaces/DU	=	162 spaces
- Four-Bedroom units	40 DU	x	3.5 spaces/DU	=	140 spaces
- Guest parking	132 DU	x	0.2 spaces/DU	=	<u>26 spaces</u>

Residential Total: 416 spaces

Commercial Component:

- Office	11,050 GSF	1.0 space/250 SF	= 44 spaces
- Coffee Shop	950 GSF	1.0 space/200 SF	= <u>5 spaces</u>

Commercial Total: 49 spaces

Total City Code Required Project Parking (Planning Areas 1 and 2) = 465 Spaces

Based on the above calculation, the Code parking requirement for the proposed near-term development within Planning Areas 1 and 2 totals 465 spaces (i.e., 416 spaces for the residential component and 49 spaces for the commercial component).

4.2 Proposed Specific Plan Parking Requirements

A calculation of the parking requirement for Planning Areas 1 and 2 was also prepared based on the parking ratios proposed for the Covina Bowl Specific Plan, as follows:

- Multiple Family Residential:
 - Bachelor/One-Bedroom units 1.5 parking spaces for each dwelling unit
 - Two-Bedroom units 2.0 parking spaces for each dwelling unit
 - Three-Bedroom units 2.5 parking spaces for each dwelling unit
 - Four-Bedroom units 3.0 parking spaces for each dwelling unit
 - Guest Parking 1.0 parking space for every five units
- Professional Offices: 1.0 parking space for each 250 square feet of gross floor area
- Food/Beverage Establishments:
 - Less than 1,000 sf of floor area 1.0 parking space for each 200 square feet of gross floor area.

Through strict application of the Specific Plan parking requirements noted above, the following parking requirement is calculated for Planning Areas 1 and 2:

Residential Component:

- One-Bedroom units	14 DU	x	1.5 spaces/DU	= 21 spaces
- Two-Bedroom units	24 DU	x	2.0 spaces/DU	= 48 spaces
- Three-Bedroom units	54 DU	x	2.5 spaces/DU	= 135 spaces
- Four-Bedroom units	40 DU	x	3.0 spaces/DU	= 120 spaces
- Guest parking	132 DU	x	0.2 spaces/DU	= <u>26 spaces</u>

Residential Total: 350 spaces

Commercial Component:

- Office	11,050 GSF	1.0 space/250 SF	= 44 spaces
- Coffee Shop	950 GSF	1.0 space/200 SF	= <u>5 spaces</u>

Commercial Total: 49 spaces

Total Specific Plan Required Project Parking (Planning Areas 1 and 2) = 399 Spaces

4.3 Proposed Project Parking Supply

A total of 346 parking spaces is planned to be provided for Planning Areas 1 and 2, with 309 spaces provided on-site and 37 spaces provided on-street along the west side of Rimsdale Avenue. The surface parking lot (i.e., 33 spaces) adjacent to the building at the southwest corner of Rimsdale Avenue and San Bernardino Road and the angled street parking (i.e., 37 spaces) proposed along the west side of Rimsdale Avenue are planned to be utilized by the office/coffee shop employees, patrons, and residential guests. In accordance with the Americans with Disabilities Act Section 208, *Parking Spaces*, for parking facilities between 26 and 50 spaces a minimum of two (2) accessible parking spaces must be provided as part of the parking supply, with one (1) in every six (6) accessible spaces being van accessible. The project must therefore provide a minimum of two (2) accessible parking spaces, one (1) of which must be van accessible within this small lot. The residential parking is planned to be provided within a combination of private residential garages and guest spaces interspersed throughout the lot, both totaling 276 parking spaces.

4.4 Code Parking Analysis Summary

Direct application of the Code parking requirements to the project yields a total parking requirement of 465 parking spaces. As mentioned previously, a total supply of 346 parking spaces, including 37 on-street diagonal spaces along the west side of Rimsdale Avenue, is planned to be provided. Thus, the proposed parking supply of 346 spaces would not satisfy the parking requirements pursuant to the strict application of the Code requirements (i.e., a deficit of 119 spaces is calculated).

4.5 Specific Plan Parking Analysis Summary

Direct application of the Specific Plan parking requirements to the project yields a total parking requirement of 399 parking spaces. As mentioned previously, a total supply of 346 parking spaces is planned to be provided for Planning Areas 1 and 2. Thus, the proposed parking supply of 346 spaces would not satisfy the parking requirements pursuant to the strict application of the Specific Plan requirements (i.e., a deficit of 53 spaces is calculated).

4.6 Shared Parking Demand Analysis

The concept of shared parking is widely recognized within the transportation planning industry and accounts for the changes in parking demand over time for different types of land uses within a project. Furthermore, accumulated experience in parking demand characteristics indicates that a mixing of land uses results in an overall parking need that is less than the sum of the individual peak requirements for each individual land use. Due to the proposed multi-use characteristics of proposed near-term Covina Bowl project, opportunities to share parking can be expected.

This shared parking analysis has been prepared based on data contained in the Third Edition of the *Shared Parking* manual⁵ published by the Urban Land Institute (ULI) in order to determine if there will be a sufficient number of parking spaces to adequately accommodate the future peak parking demand of the residential component of the project in combination with full occupancy of the office and coffee shop tenant spaces proposed as part of the project. The *Shared Parking* manual provides recommendations with respect to the following characteristics of parking demand:

- Hourly Parking Indices. The Shared Parking manual provides hourly parking indices for various land uses. For the proposed coffee shop, the hourly parking indices for fast casual/fast food uses were utilized, with adjustments to the early morning hours to account for the peak demand typical of coffee shops in the morning. The indices also show, for example, that the hourly parking demand for office uses (which generates its peak parking demand concentrated around the mid-morning and mid-afternoon hours) is different than the parking demand associated with residential uses (which generate its peak parking demand concentrated around the evening periods). Thus, under the shared parking principle, a parking space that is used in the daytime by an employee/patron of the office use could be used again in the late afternoon/early evening period by a guest of the residential use.
- Day of Week Parking Variations. The *Shared Parking* manual provides recommendations for day of week parking factors. For example, office uses experience their peak parking demands during weekdays and experience minimal parking demand during the weekends.

The peak parking ratios for the residential component (i.e., based on the mix of bedroom unit types) are based on the ULI recommended parking ratios contained within the *Shared Parking* manual. For the residential spaces, it should be noted that only the residential guest spaces are expected to be available for shared use. Direct application of these peak parking demand ratios yields an unadjusted base parking demand of 356 spaces (307 spaces for the peak residential condition and 49 spaces for the peak commercial condition). While the office and coffee shop patrons may be expected to generate a significant degree of internal capture from the on-site residents as well as walk-in patronage from surrounding uses in the area, no adjustment factor

⁵ *Shared Parking*, Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

(reduction) was employed so as to provide a conservative analysis. The shared parking analysis essentially only accounts for the variations in demand that occur based on the time of day and/or the day of week fluctuations between the residential and commercial uses.

In order to determine the peak parking demand for the Planning Areas 1 and 2 project, a shared parking demand model for the proposed residential and commercial components was developed. The ULI/Code parking ratios along with the ULI hourly parking accumulation profiles for the proposed residential, office, and coffee shop uses were applied to determine the forecast shared parking demand for the project. The weekday and weekend parking analyses utilizing the Shared Parking methodology and assuming full occupancy of the commercial tenant spaces, are summarized in *Tables 4-1* and *4-2*, respectively. *Appendix A* contains the weekday and weekend day shared parking analysis calculation worksheets for the individual project land use components (i.e., residential and commercial space).

When accounting for shared parking usage between the proposed office/coffee shop patrons along with the residential guests, a peak weekday parking demand of 337 spaces (97.4% utilization of the combined total of 346 spaces) is forecast to occur at 10:00 AM and 2:00 PM as shown in *Table 4-1*. The weekend peak shared parking demand for the project is forecast to be less than the weekday peak parking demand. As shown in *Table 4-2*, a peak parking demand of 311 spaces (89.9% utilization of the combined total of 346 spaces) is forecast to occur at 7:00 PM during a weekend day condition. As a result, the overall peak shared parking demand for the near-term project proposed for Planning Areas 1 and 2 is forecast to total 337 parking spaces. Consequently, given the review of the shared parking demand analysis and comparisons with the parking supply, it can be concluded that surpluses of 9 and 35 parking spaces are forecast to occur during peak weekday and weekend conditions, respectively.

Table 4-1
WEEKDAY SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (One-Bedroom) [5]	Residential (Two-Bedroom) [5]	Residential (Three- /Four-Bedroom) [5]	Office [6]	Coffee Shop [7]	Shared Parking Demand	Comparison w/ Parking Supply [8] 346 Spaces Surplus (Deficiency)
Size	14 DU	24 DU	94 DU	11.1 KSF	1.0 KSF		
Peak Pkg Rate[2]	1.05 /DU	1.80 /DU	2.65 /DU	4.0 /KSF	5.0 /KSF		
Weekday Pkg Rate[3]	1.00 /DU	1.75 /DU	2.60 /DU	4.0 /KSF	4.9 /KSF		
Gross Spaces	14 Spc.	42 Spc.	244 Spc.	44 Spc.	5 Spc.		
Adjusted Gross Spaces[4]	14 Spc.	42 Spc.	244 Spc.	44 Spc.	5 Spc.	Shared Parking Demand	Surplus (Deficiency)
Time of Day	Number of Spaces	Number of Spaces	Number of Spaces	Number of Spaces	Number of Spaces		
6:00 AM	13	40	235	1	0	289	57
7:00 AM	13	40	236	6	1	296	50
8:00 AM	13	40	237	22	2	314	32
9:00 AM	13	40	237	39	2	331	15
10:00 AM	13	40	237	44	3	337	9
11:00 AM	13	40	237	42	4	336	10
12:00 PM	13	40	237	35	5	330	16
1:00 PM	13	40	237	36	5	331	15
2:00 PM	13	40	237	42	5	337	9
3:00 PM	13	40	237	40	3	333	13
4:00 PM	13	40	237	35	3	328	18
5:00 PM	13	41	239	25	3	321	25
6:00 PM	14	41	240	10	4	309	37
7:00 PM	14	42	244	6	4	310	36
8:00 PM	14	42	244	2	3	305	41
9:00 PM	14	42	244	1	1	302	44
10:00 PM	14	42	244	0	1	301	45
11:00 PM	14	42	242	0	0	298	48
12:00 AM	14	41	240	0	0	295	51

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI Shared Parking manual for the residential component and the City of Covina Municipal Code off-street parking requirements for the commercial uses.

[3] The weekday and weekend parking rates are based on the ULI/Code parking ratio and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

[5] The proposed 132 total residential units includes a unit mix breakdown consisting of 14 one-bedroom units, 24 two-bedroom units, and 94 three-bedroom/four-bedroom units.

[6] The square footage includes the proposed office use totaling 11,050 square feet of gross floor area.

[7] The square footage includes the proposed coffee shop use totaling 950 square feet of gross floor area.

[8] The total parking supply of 346 spaces consists of parking spaces on the site (i.e., 309 spaces) and parking spaces proposed along the west side of Rimsdale Avenue along the project frontage (i.e., 37 spaces).

Table 4-2
WEEKEND SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (One-Bedroom) [5]	Residential (Two-Bedroom) [5]	Residential (Three- /Four-Bedroom) [5]	Office [6]	Coffee Shop [7]	Shared Parking Demand	Comparison w/ Parking Supply [8] 346 Spaces Surplus (Deficiency)
Size	14 DU	24 DU	94 DU	11.1 KSF	1.0 KSF		
Peak Pkg Rate[2]	1.05 /DU	1.80 /DU	2.65 /DU	4.0 /KSF	5.0 /KSF		
Weekend Pkg Rate[3]	1.05 /DU	1.80 /DU	2.65 /DU	0.4 /KSF	5.0 /KSF		
Gross Spaces	15 Spc.	43 Spc.	249 Spc.	4 Spc.	5 Spc.		
Adjusted Gross Spaces[4]	15 Spc.	43 Spc.	249 Spc.	4 Spc.	5 Spc.		
Time of Day	Number of Spaces	Number of Spaces	Number of Spaces	Number of Spaces	Number of Spaces		
6:00 AM	13	39	235	0	0	287	59
7:00 AM	13	40	238	1	1	293	53
8:00 AM	13	40	238	2	2	295	51
9:00 AM	13	40	238	3	2	296	50
10:00 AM	13	40	238	4	3	298	48
11:00 AM	13	40	238	4	4	299	47
12:00 PM	13	40	238	4	5	300	46
1:00 PM	13	40	238	3	5	299	47
2:00 PM	13	40	238	2	5	298	48
3:00 PM	13	40	238	2	3	296	50
4:00 PM	13	40	238	1	3	295	51
5:00 PM	14	41	241	0	3	299	47
6:00 PM	14	41	243	0	4	302	44
7:00 PM	15	43	249	0	4	311	35
8:00 PM	15	43	249	0	3	310	36
9:00 PM	15	43	249	0	1	308	38
10:00 PM	15	43	249	0	1	308	38
11:00 PM	15	42	246	0	0	303	43
12:00 AM	14	41	242	0	0	297	49

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI Shared Parking manual for the residential component and the City of Covina Municipal Code off-street parking requirements for the commercial uses.

[3] The weekday and weekend parking rates are based on the ULI/Code parking ratio and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

[5] The proposed 132 total residential units includes a unit mix breakdown consisting of 14 one-bedroom units, 24 two-bedroom units, and 94 three-bedroom/four-bedroom units.

[6] The square footage includes the proposed office use totaling 11,050 square feet of gross floor area.

[7] The square footage includes the proposed coffee shop use totaling 950 square feet of gross floor area.

[8] The total parking supply of 346 spaces consists of parking spaces on the site (i.e., 309 spaces) and parking spaces proposed along the west side of Rimsdale Avenue along the project frontage (i.e., 37 spaces).

5.0 EXISTING STREET SYSTEM

5.1 Regional Highway System

Regional access to the project site is provided by the San Bernardino (I-10) and Foothill (I-210) Freeways. A brief description of the I-10 and I-210 Freeways is provided in the following paragraphs.

San Bernardino (I-10) Freeway is a major east-west freeway located approximately one mile south of the project site. The I-10 Freeway connects the City of Santa Monica with the City of Los Angeles and the municipalities of the San Gabriel Valley and San Bernardino County to the east. In the project vicinity, four mixed-flow mainline lanes are provided in each direction on the I-10 Freeway with auxiliary merge/weave lanes provided between some interchanges. Full access interchanges (i.e., eastbound and westbound on- and off-ramps) are provided at Azusa Avenue and Vincent Avenue.

Foothill (I-210) Freeway is a major east-west freeway located approximately two miles north of the project site. The I-210 Freeway connects the foothill communities from the westerly terminus in Sylmar to the easterly terminus in Redlands. In the project vicinity, four mixed-flow mainline lanes and one High Occupancy Vehicle lane are provided in each direction on the I-210 Freeway. Full access interchanges (i.e., eastbound and westbound on- and off-ramps) are provided at North Vernon Avenue (northerly extension of Lark Ellen Avenue) and Citrus Avenue.

5.2 Local Street System

Immediate access to the project site is provided via Rimsdale Avenue, San Bernardino Road, and Badillo Street. The following study intersections were selected for analysis in consultation with the City of Covina staff in order to determine potential impacts related to the proposed project:

1. Lark Ellen Avenue/Cypress Street (Los Angeles County)
2. Lark Ellen Avenue/San Bernardino Road (Covina, West Covina)
3. Lark Ellen Avenue/Badillo Street (Covina, West Covina)
4. Lark Ellen Avenue/Puente Avenue (West Covina)
5. Rimsdale Avenue/San Bernardino Road (Covina)
6. Rimsdale Avenue/Badillo Street (Covina)
7. Azusa Avenue/Cypress Street (Covina)
8. Azusa Avenue/San Bernardino Road (Covina)
9. Azusa Avenue/Badillo Street (Covina, West Covina)
10. Azusa Avenue/Puente Avenue (West Covina)
11. Armel Drive/Badillo Street (Covina)

12. Hollenbeck Avenue/San Bernardino Road (Covina)

13. Hollenbeck Avenue/Badillo Street (Covina)

Twelve of the 13 study intersections selected for analysis are currently controlled by traffic signals. The Armel Drive/Badillo Street intersection is currently controlled by stop signs facing the northbound and southbound Armel Drive approaches. The existing lane configurations at the 13 study intersections are displayed in **Figure 5-1**.

5.3 Roadway Classifications

The City of Covina utilizes similar roadway categories recognized by regional, state and federal transportation agencies. There are four general categories in the roadway hierarchy, ranging from freeways with the highest capacity to two-lane undivided roadways with the lowest capacity. The roadway categories are summarized as follows:

- *Freeways* are limited-access and high speed travel ways included in the state and federal highway systems. Their purpose is to carry regional through-traffic. Access is provided by interchanges with typical spacing of one mile or greater. No local access is provided to adjacent land uses.
- *Arterial* roadways are major streets that primarily serve through-traffic and provide access to abutting properties as a secondary function. Arterials are generally designed with two to six travel lanes and their major intersections are signalized. This roadway type is divided into two categories: principal and minor arterials. Principal arterials are typically four-or-more lane roadways and serve both local and regional through-traffic. Minor arterials are typically two-to-four lane streets that service local and commuter traffic.
- *Collector* roadways are streets that provide access and traffic circulation within residential and non-residential (e.g., commercial and industrial) areas. Collector roadways connect local streets to arterials and are typically designed with two through travel lanes (i.e., one through travel lane in each direction) that may accommodate on-street parking. They may also provide access to abutting properties.
- *Local* roadways distribute traffic within a neighborhood, or similar adjacent neighborhoods, and are not intended for use as a through-street or a link between higher capacity facilities such as collector or arterial roadways. Local streets are fronted by residential uses and do not typically serve commercial uses.

5.4 Roadway Descriptions

A review of the important roadways in the project site vicinity and study area is summarized in **Table 5-1**. As indicated in **Table 5-1**, the important roadways within the project study area were reviewed in terms of the number of lanes provided, parking restrictions, and posted speed limits, etc. Additionally, the roadway classifications of key roads in the project study area are also presented in **Table 5-1**.

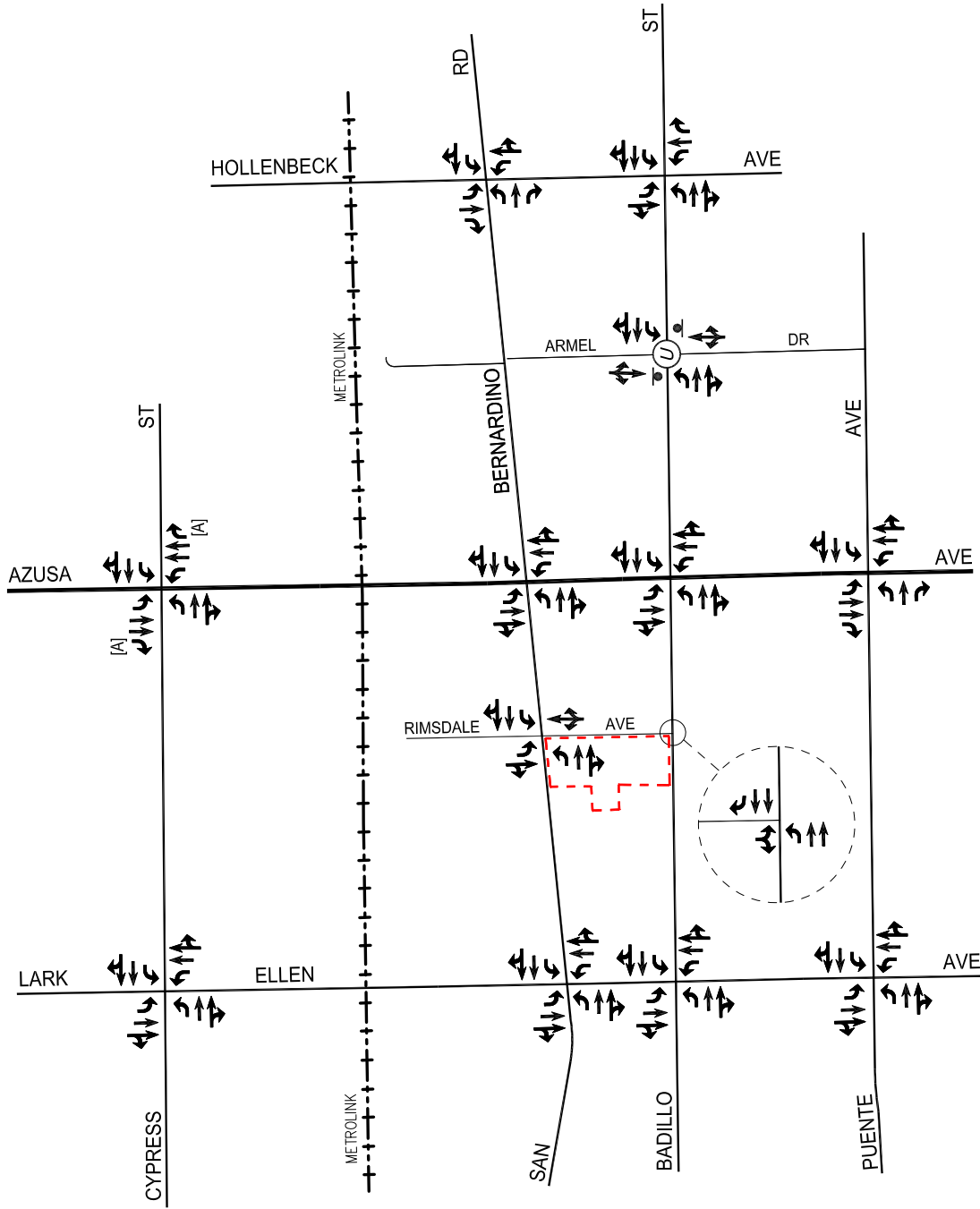


FIGURE 5-1
EXISTING LANE CONFIGURATIONS

COVINA BOWL SPECIFIC PLAN PROJECT

NOT TO SCALE

SPECIFIC PLAN BOUNDARY

[A] ASSUMED DE-FACTO RIGHT-TURN LANE

UNSIGNALIZED INTERSECTION

STOP SIGN

LINSCOTT, LAW & GREENSPAN, engineers

Table 5-1
EXISTING ROADWAY DESCRIPTIONS

Roadway	Classification [1]	Travel Lanes		Median Types [4]	Speed Limit
		Direction [2]	No. Lanes [3]		
Lark Ellen Avenue -North of Queensdale Dr -North of Grovecenter St -South of Grovecenter St	Secondary Highway Collector Residential Main	NB-SB NB-SB NB-SB	4 [5] 4 [6] 4 [7]	N/A N/A N/A	40 40 40
Rimsdale Avenue	Local Street	NB-SB	2 [6]	N/A	25
Azusa Avenue -North of Badillo St -South of Badillo St	Primary Arterial Commercial/Mixed-Use Thoroughfare	NB-SB NB-SB	4 [6] 4 [7]	RMI RMI	40 40
Hollenbeck Avenue	Collector	NB-SB	4 to 2 [6]	N/A	35
Cypress Street -West of Leaf Ave -East of Leaf Ave	Secondary Highway Collector	EB-WB EB-WB	4 [5] 4 [6]	N/A N/A	40 40
San Bernardino Road	Collector	EB-WB	4 [6]	N/A	35 to 40
Badillo Street -West of Lark Ellen Ave -East of Lark Ellen Ave	Commercial/Mixed-Use Main Secondary Arterial	EB-WB EB-WB	4 [7] 4 [6][8]	RMI RMI	40 45
Puente Avenue	Residential Main	EB-WB	4 to 2 [7]	N/A	40

Notes:

- [1] Roadway classifications obtained from the *Los Angeles County General Plan Highway Plan*, adopted May 2014, *City of Covina General Plan Circulation Element*, adopted April 18, 2000, and *West Covina General Plan*, adopted December 2016.
- [2] Direction of roadways in the project area: NB-SB = northbound and southbound; and EB-WB = eastbound and westbound.
- [3] Number of lanes in both directions on the roadway.
- [4] Median type of the road: RMI = Raised Median Island; 2WLT = 2-Way Left-Turn Lane; and N/A = Not Applicable.
- [5] County of Los Angeles
- [6] City of Covina
- [7] City of West Covina
- [8] Class II Bike Lane

5.5 Existing Transit Services

Public transit service within the project study area is currently provided by the Foothill Transit Authority, the City of West Covina transit system, and Metrolink, as described in the following sections. A summary of the existing transit services, including the transit routes, destinations and number of trains and buses during the weekday AM and PM peak hours is presented in *Table 5-2*.

5.5.1 Public Bus Transit

Public bus transit service in the project study area is provided by Foothill Transit and the City of West Covina. A summary of the existing transit service, including the transit route, destinations and peak hour headways is presented in *Table 5-2*. The existing public transit routes in the project site vicinity are illustrated in *Figure 5-2*.

5.5.2 Regional Rail Transit

Metrolink provides a rail stop for the San Bernardino Line, which extends between Union Station in Downtown Los Angeles and the City of San Bernardino. This Metrolink stop provides connectivity between the proposed project and the regional network of rail lines operated by Amtrak, Metro and SCRRA. The Covina station is located north of Front Street on the east side of Citrus Avenue (approximately two miles east of the site) and connects with the public bus transit services. As summarized in *Table 5-2*, during the weekday AM peak hour, three trains per hour are provided at the Covina station: two travel westbound to Los Angeles Union Station, and one travels eastbound to the City of San Bernardino. During the weekday PM peak hour, three trains per hour are provided at the Covina station: two travel eastbound to the City of San Bernardino, and one travels westbound to Los Angeles Union Station. An illustration of the regional rail network serving the greater Los Angeles area is presented in *Figure 5-3*.

Table 5-2
EXISTING TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
Foothill Transit 190	Pomona to El Monte via Covina, West Covina and Baldwin Park	Lark Ellen Avenue, Rimsdale Avenue, Azusa Avenue, San Bernardino Road	EB WB	4 4	4 3
Foothill Transit 280	Puente Hills to Azusa via La Puente, West Covina and Covina	Azusa Avenue, San Bernardino Road, Badillo Street, Puente Avenue	NB SB	4 4	4 4
Foothill Transit 488	Glendora to El Monte via Covina, West Covina and Baldwin Park	Lark Ellen Avenue, Azusa Avenue, Rowland Avenue	EB WB	3 3	2 2
West Covina Blue Line	City of West Covina	Lark Ellen Avenue, Badillo Street	Clockwise C-Clockwise	0 2	0 2
West Covina Red Line	City of West Covina	Azusa Avenue, Puente Avenue	Clockwise C-Clockwise	2 0	2 0
Metrolink - San Bernardino	San Bernardino to Downtown Los Angeles via Rialto, Fontana, Rancho Cucamonga, Upland, Montclair, Claremont, Pomona, Covina, Baldwin Park, El Monte and Cal State L/A	Citrus Avenue, Front Street	EB WB	1 2	2 1
Total				29	26

[1] Sources: Foothill Transit, City of West Covina (Transit) and Metrolink websites, 2019.



MAP SOURCE: FOOTHILL TRANSIT WEBSITE 2019



NOT TO SCALE

★ PROJECT SITE

FIGURE 5-2
EXISTING TRANSIT ROUTES



FIGURE 5-3

REGIONAL RAIL NETWORK

MAP SOURCE: METROLINK 2019

NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

COVINA BOWL SPECIFIC PLAN PROJECT

6.0 TRAFFIC COUNTS

Existing manual counts of vehicular turning movements were conducted for a typical weekday at each of the 13 study intersections during the morning (AM) and afternoon (PM) commute periods to determine the peak hour traffic volumes. The manual counts were generally conducted in September 2019 by an independent traffic count subconsultant from 7:00 AM to 9:00 AM to determine the weekday AM peak commute hour and from 4:00 PM to 6:00 PM to determine the weekday PM peak commute hour. In conjunction with the manual turning movement vehicle counts, a count of bicycle and pedestrian volumes were collected during the peak periods. It is noted that all of the traffic counts were conducted when local schools were in regular session. Traffic volumes at the study intersections showed the morning and afternoon peak periods typically associated with the peak commute hours in the metropolitan area (i.e., prior to the pandemic which has since resulted in significantly lower traffic volumes system-wide).

The existing weekday AM and PM peak hour manual counts of vehicle movements at the study intersections are summarized in **Table 6-1**. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in **Figures 6-1** and **6-2**, respectively. For each study intersection, the highest one-hour total traffic volumes (i.e., four consecutive 15-minute time intervals) traversing through the intersection during the 7:00 to 9:00 AM and 4:00 to 6:00 PM time periods were selected so as to determine the respective weekday AM and PM peak hour traffic volumes for each study intersection. For purposes of the transportation impact analysis, this common traffic engineering practice ensures that a more conservative (i.e., worst case) assessment of existing operating conditions be attained for each study intersection. Therefore, the traffic volumes shown in **Figures 6-1** and **6-2** for the study intersections do not necessarily reflect the same exact one hour time period during the morning and/or afternoon peak commuter conditions (i.e., one intersection's peak hour may have occurred between 7:30 and 8:30 AM, while another intersection's peak hour may have occurred between 7:45 and 8:45 AM). Summary data worksheets of the manual vehicle, pedestrian and bicycle counts of the study intersections are contained in **Appendix B**.

Table 6-1
EXISTING TRAFFIC VOLUMES [1]
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME	BEGAN	VOLUME
1	Lark Ellen Avenue / Cypress Street	09/19/2019	NB	7:00	589	4:15	660
			SB		626		564
			EB		597		1,257
			WB		1,265		580
2	Lark Ellen Avenue / San Bernardino Road	09/18/2019	NB	7:15	671	5:00	775
			SB		844		667
			EB		495		990
			WB		872		535
3	Lark Ellen Avenue / Badillo Street	09/18/2019	NB	7:15	665	4:45	724
			SB		562		676
			EB		689		1,031
			WB		1,151		609
4	Lark Ellen Avenue / Puente Avenue	09/18/2019	NB	7:15	796	5:00	832
			SB		704		872
			EB		506		797
			WB		623		341
5	Rimsdale Avenue / San Bernardino Road	09/18/2019	NB	7:15	97	5:00	213
			SB		82		113
			EB		572		997
			WB		845		548
6	Rimsdale Avenue / Badillo Street	09/18/2019	NB	7:15	0	4:45	0
			SB		188		127
			EB		728		1,155
			WB		1,100		676
7	Azusa Avenue / Cypress Street	09/19/2019	NB	7:30	902	4:30	1,010
			SB		976		918
			EB		725		1,264
			WB		753		532
8	Azusa Avenue / San Bernardino Road	09/18/2019	NB	7:30	791	5:00	882
			SB		955		975
			EB		533		903
			WB		756		465
9	Azusa Avenue / Badillo Street	09/18/2019	NB	7:15	1,126	5:00	982
			SB		935		1,052
			EB		704		1,111
			WB		905		697
10	Azusa Avenue / Puente Avenue	09/18/2019	NB	7:15	1,342	4:45	969
			SB		1,037		1,300
			EB		527		812
			WB		650		359

[1] Counts conducted by City Traffic Counters

Table 6-1 (Continued)
EXISTING TRAFFIC VOLUMES [1]
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME	BEGAN	VOLUME
11	Armel Drive / Badillo Street	02/06/2020	NB	7:15	30	4:30	20
			SB		27		17
			EB		741		1,005
			WB		860		648
12	Hollenbeck Avenue / San Bernardino Road	09/18/2019	NB	7:15	542	5:00	655
			SB		939		650
		10/02/2019	EB		372		678
			WB		495		430
13	Hollenbeck Avenue / Badillo Street	10/03/2019	NB	7:30	635	4:00	674
			SB		453		418
			EB		761		908
			WB		721		580

[1] Counts conducted by City Traffic Counters

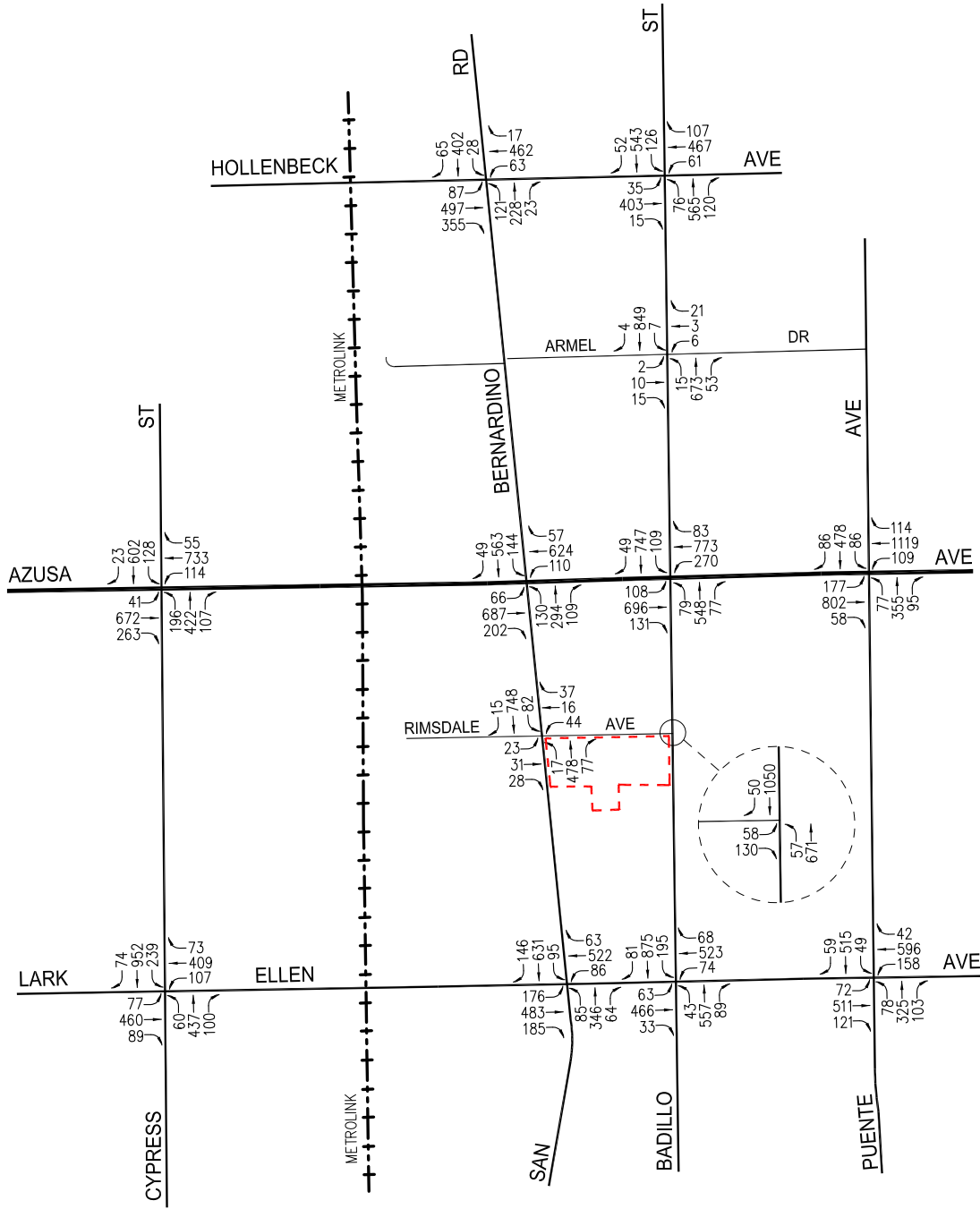
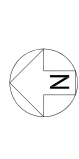


FIGURE 6-1
EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

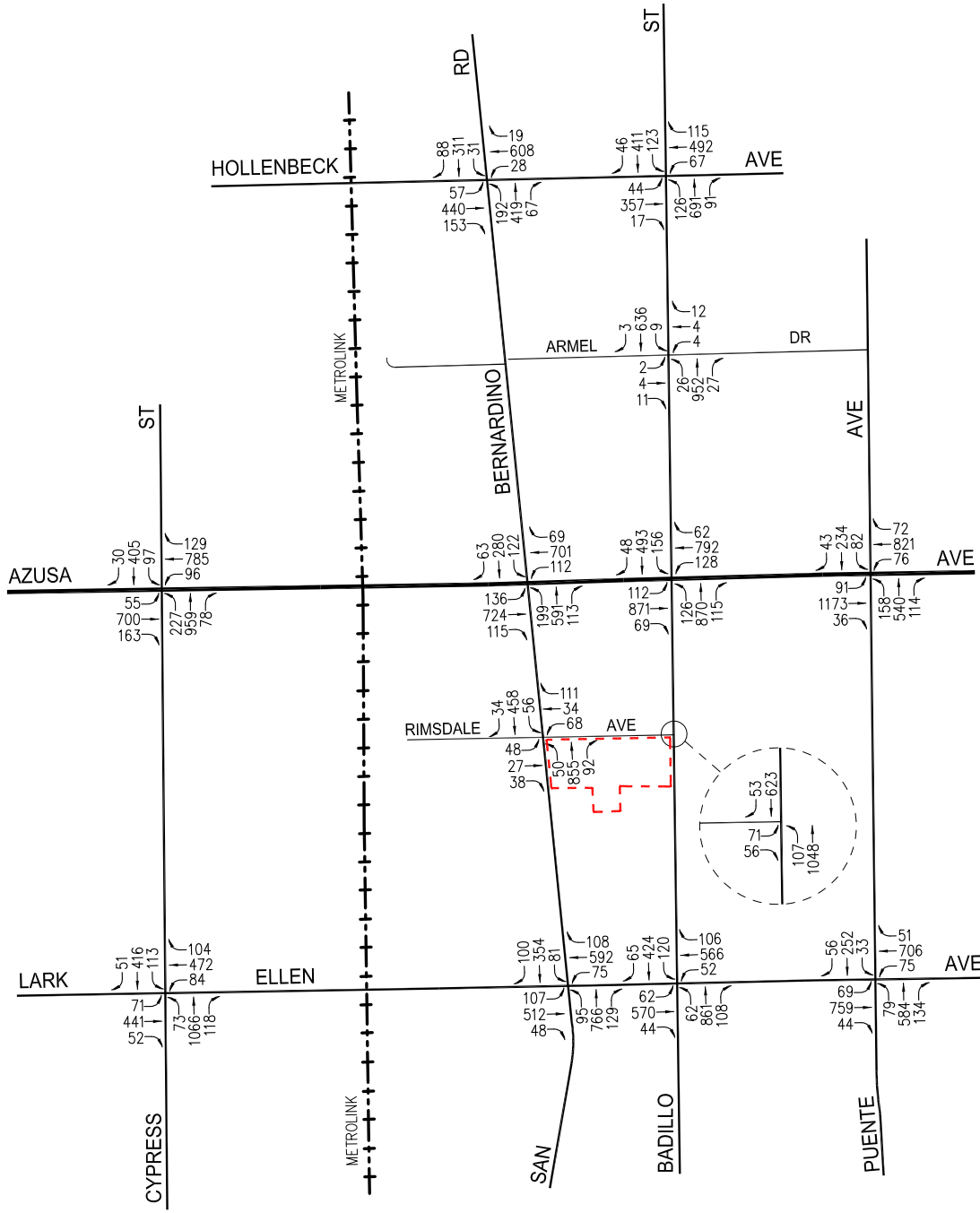


FIGURE 6-2
EXISTING TRAFFIC VOLUMES
 WEEKDAY PM PEAK HOUR
 COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE



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7.0 CUMULATIVE DEVELOPMENT PROJECTS

The forecast of future pre-project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

“(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or

(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.”

Accordingly, the transportation analysis provides a highly conservative estimate of future pre-project traffic volumes as it incorporates both the “A” and “B” options outlined in the CEQA Guidelines for purposes of developing the forecast.

7.1 Related Projects

A forecast of on-street traffic conditions prior to occupancy of the proposed project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the proposed project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at the City of Covina Community Development Department, the City of West Covina Planning Department, and the County of Los Angeles Department of Regional Planning. The related projects in the study area are presented in **Table 7-1**. The locations of the related projects are shown in **Figure 7-1**. While Planning Areas 3 and 4 are listed in *Table 7-1*, the vehicle trips associated with these planning areas are not included in the analysis of the near-term development (year 2024) pre-project conditions since the build-out of Planning Areas 3 and 4 is anticipated to occur after the near-term development of Planning Areas 1 and 2 (i.e., post-2024).

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the *ITE Trip Generation Manual*⁶. The related projects’ respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is

⁶ Institute of Transportation Engineers *Trip Generation Manual*, 9th and 10th Editions, Washington, D.C., 2012, 2017.

TABLE 7-1
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP NO.	PROJECT STATUS	PROJECT NAME/NUMBER ADDRESS/LOCATION	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]		PM PEAK HOUR VOLUMES [2]			
			LAND-USE	SIZE			IN	OUT	IN	OUT	TOTAL	TOTAL
City of Covina												
C1	Under Construction	City Ventures Covina 3 400 Block North Citrus Avenue	Condominium Retail	68 DU 5,794 GLSF	[3] [4]	395 247	5 4	25 2	30 6	23 10	12 11	35 21
C2	Proposed	Covina Townhomes (Site A) Project NWC of Citrus Avenue & San Bernardino Road	Townhome Restaurant Retail	161 DU 3,800 GSF 13,500 GLSF	[5]	1,700	36	72	108	87	58	145
C3b C3c	Under Construction	Covina Townhomes (Sites B1, B2 & C)	Townhome Retail Office	18 DU 3,370 GLSF 1,030 GSF	[6]	219	6	7	13	11	10	21
C4	Under Construction	1162 North Citrus Avenue	Condominium	117 DU	[3]	680	9	42	51	41	20	61
C5	Approved	North Citrus Avenue & East Covina Boulevard	Office Event Center	15,000 GSF 25,000 GSF	[7] [8]	165 846	20 34	3 17	23 51	4 34	18 35	22 69
C6	Under Construction	276 West Dexter Street	Condominium	3 DU	[3]	17	0	1	1	1	1	2
C7	Under Construction	172 East Center Street	Apartment	5 DU	[9]	33	1	2	3	2	1	3
C8	Approved	525 South Citrus Avenue	Retail/Office Restaurant	5,900 GLSF 5,000 GSF	[4] [10]	252 2,481	4 116	2 111	6 227	11 85	11 78	22 163
C9	Under Construction	Covina Transit Center Park & Ride North Citrus Avenue & Covina Boulevard	Retail Parking Structure	4,800 GLSF 359 Occupied Spaces	[11] [12]	181 1,393	3 128	2 30	5 158	9 49	9 148	18 197
C10a	Proposed	Covina Bowl Specific Plan Planning Area 3	Retail Less Existing Office	4,175 GLSF (4,175) GSF	[13]	118	(2)	1	(1)	7	4	11
C10a	Proposed	Covina Bowl Specific Plan Planning Area 4	Retail Less Existing Apartment Less Existing Restaurant	37,244 GLSF (31) DU (4,652) GSF	[13]	716	(6)	(16)	(22)	31	52	83
City of West Covina												
WC1	Proposed	Chick-fil-A 200 South Vincent Avenue	Restaurant	4,214 GSF	[14]	1,985	86	83	169	72	66	138

TABLE 7-1 (Continued)
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP NO.	PROJECT STATUS	PROJECT NAME/NUMBER ADDRESS/LOCATION	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2]	AM PEAK HOUR VOLUMES [2]		PM PEAK HOUR VOLUMES [2]	
			LAND-USE	SIZE			IN	OUT	IN	OUT
WC2	Proposed	1611-1623 West San Bernardino Road	Condominium	24 DU	[15]	176	3	8	11	8
County of Los Angeles										
LC1	Proposed	16741 East Arrow Highway	Retail	1,856 GLSF	[10]	70	1	1	2	3
TOTAL						11,674	448	393	841	488
										543
										1,031
										7

[1] Sources: City of Covina Community Development Department, City of West Covina Planning Department and County of Los Angeles Department of Regional Planning. Trip generation for the related projects is based on ITE "Trip Generation Manual", 9th Edition, 2012 and 10th Edition, 2017 (as referenced in the Project Data Source column), except as noted.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 230 (Residential Condominium/Townhouse) 9th Edition trip generation average rates.

[4] ITE Land Use Code 820 (Shopping Center) 9th Edition trip generation average rates.

[5] Source: "Covina Townhomes (Site A) Project Traffic Impact Study", prepared by LLG Engineers, May 9, 2018.

[6] Source: "Covina Townhomes Project Traffic Impact Study", prepared by LLG Engineers, October 9, 2017.

[7] ITE Land Use Code 710 (General Office) 9th Edition trip generation average rates.

[8] ITE Land Use Code 495 (Recreational Community Center) 9th Edition trip generation average rates.

[9] ITE Land Use Code 220 (Apartment) 9th Edition trip generation average rates.

[10] ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Through) 9th Edition trip generation average rates.

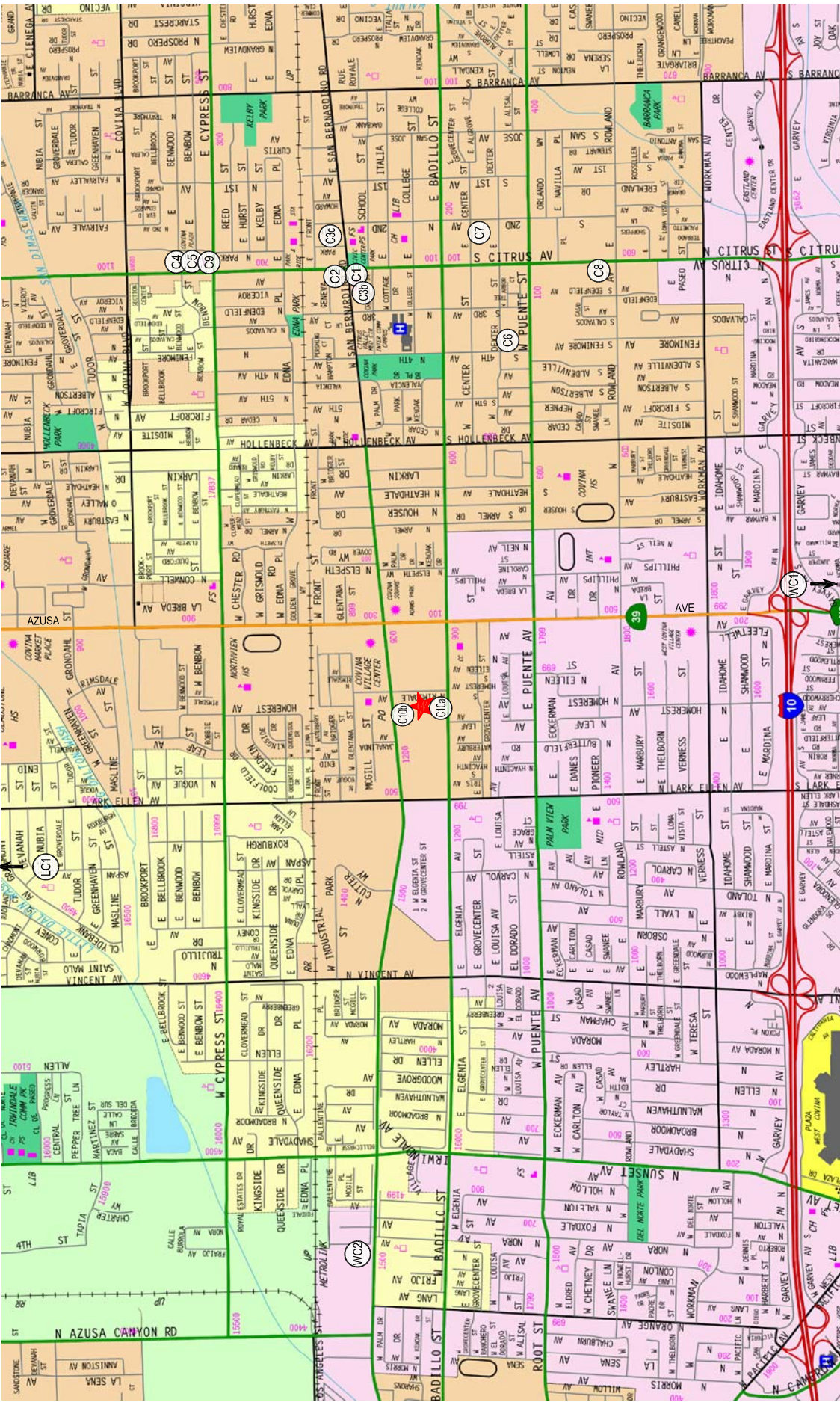
[11] ITE Land Use Code 820 (Shopping Center) 10th Edition trip generation average rates.

[12] ITE Land Use Code 090 (Park-and-Ride Lot w/ Bus or Light Rail Service) 10th Edition trip generation average rates.

[13] It is assumed that build-out of Planning Areas 3 and 4 as part of the Covina Bowl Specific Plan would extend beyond the project build-out year of 2024 for Planning Areas 1 and 2.

[14] ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Through) 10th Edition trip generation average rates.

[15] ITE Land Use Code 220 (Multifamily Housing - Low-Rise) 10th Edition trip generation average rates.



MAP SOURCE: RAND MCNALLY & COMPANY



NOT TO SCALE



PROJECT SITE

CITY OF COVINA RELATED PROJECT

CITY OF WEST COVINA RELATED PROJECT

COUNTY OF LOS ANGELES RELATED PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 7-1
LOCATION OF RELATED PROJECTS

COVINA BOWL SPECIFIC PLAN PROJECT

summarized in *Table 7-1*. As shown in *Table 7-1*, the related projects are expected to generate a combined total of 11,674 daily trips during a typical weekday, 841 vehicle trips (448 inbound trips and 393 outbound trips) during the weekday AM peak hour, and 1,031 vehicle trips (488 inbound trips and 543 outbound trips) during the weekday PM peak hour. The anticipated distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours is displayed in **Figures 7-2** and **7-3**, respectively.

7.2 Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of one percent (1.0%) per year to the year 2024 (i.e., the anticipated year of build-out of the near-term project proposed within Planning Areas 1 and 2). The Specific Plan build-out is anticipated to occur by future year 2040. Therefore, the existing traffic volumes were increased at an annual rate of one percent (1.0%) per year to the year 2024 (i.e., similar to the near-term projection year) and an annual rate of one-half percent (0.50%) per year was incorporated from year 2024 to year 2040.

The ambient growth factor was based on general traffic growth factors provided in the *2010 Congestion Management Program* (the “CMP manual”). The general traffic growth factors provided in the CMP manual for the Regional Statistical Area (RSA) 26, which includes the Covina and West Covina areas, has an annual traffic volume growth rate of approximately 0.46% per year between years 2010 and 2020. Thus, application of a one percent (1.0%) annual growth factor allows for a conservative, worst-case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual’s traffic growth rate is intended to anticipate future traffic generated by development projects in the project vicinity. Thus, the inclusion in this traffic analysis of both a forecast of traffic generated by the known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

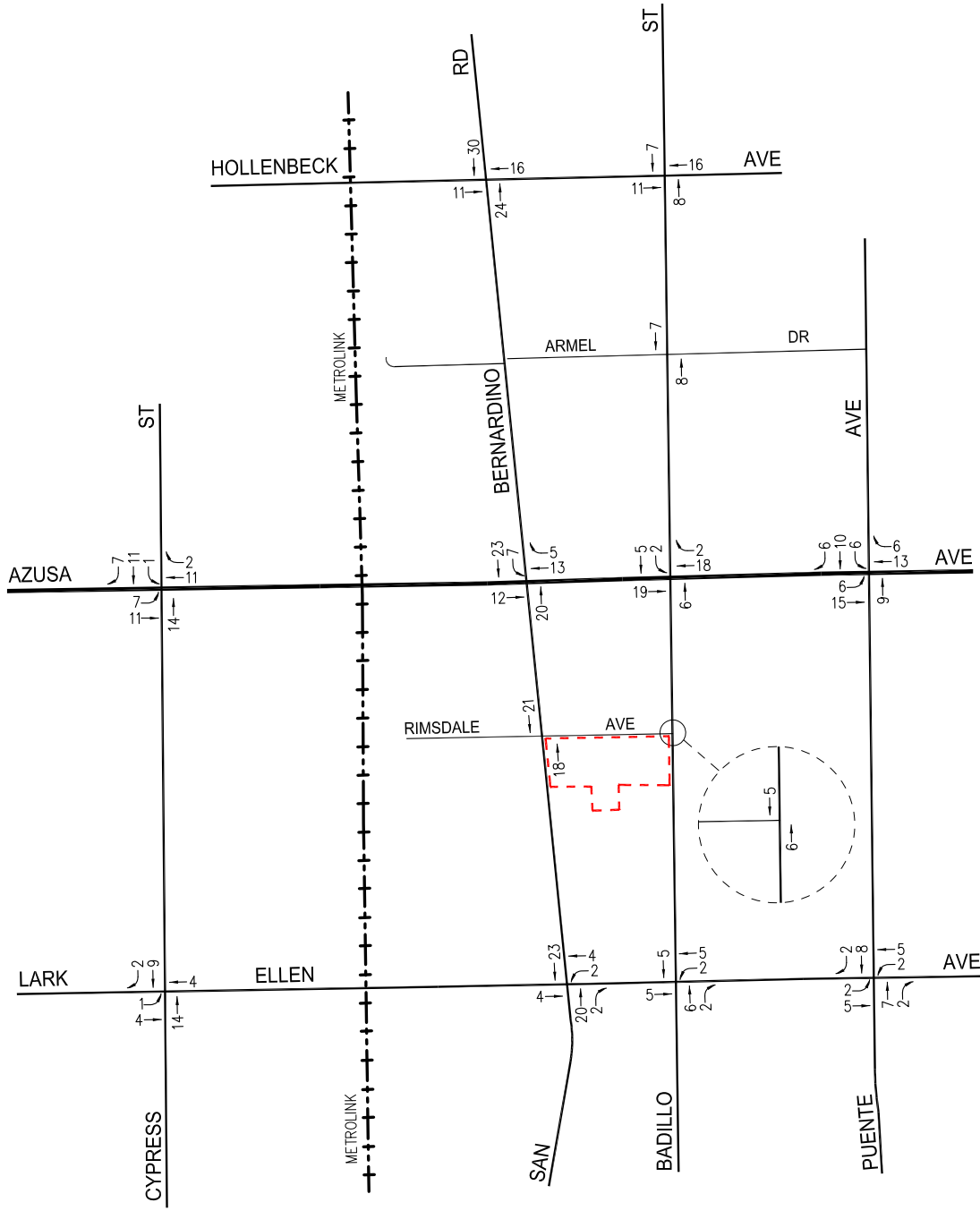


FIGURE 7-2
RELATED PROJECTS TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

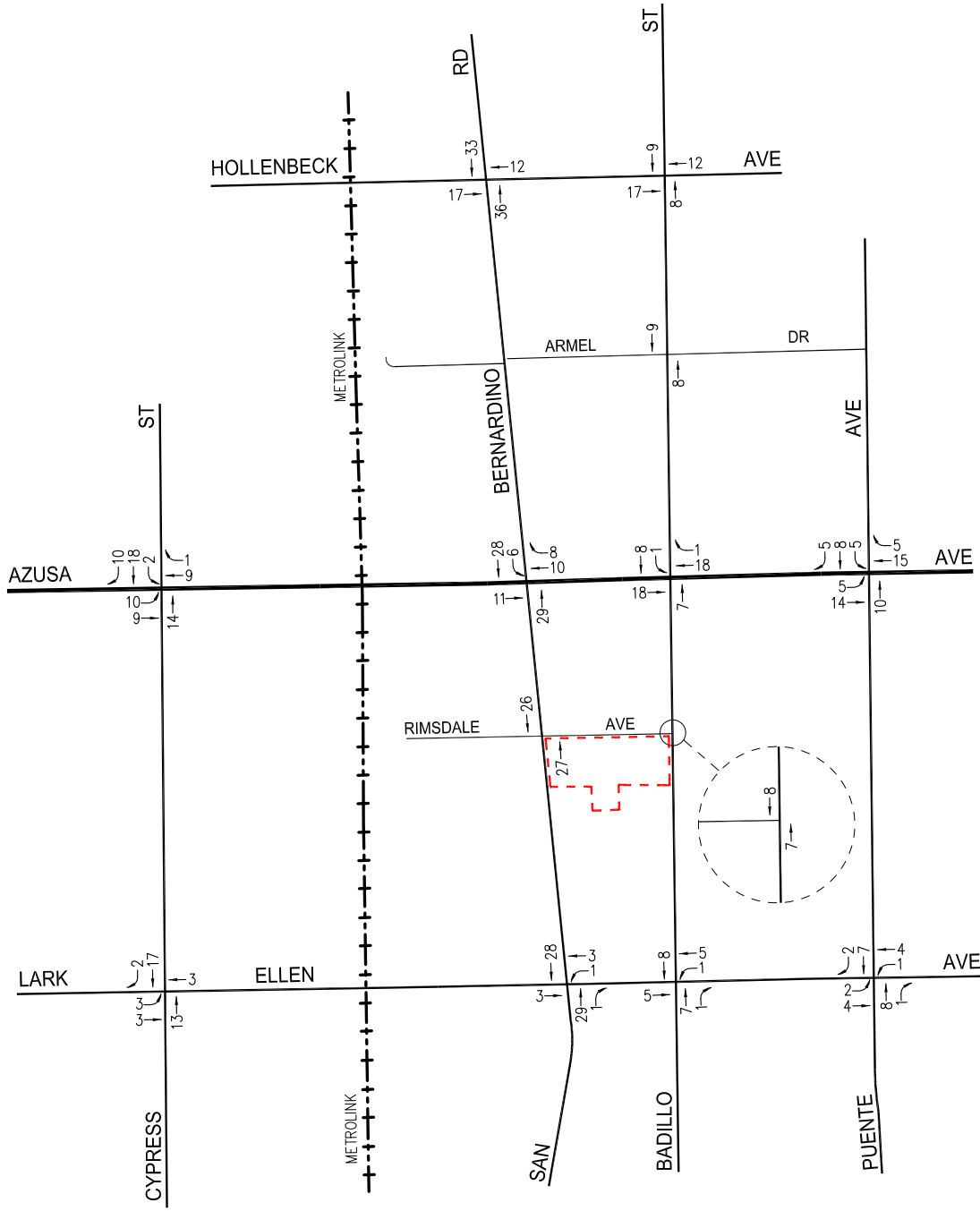


FIGURE 7-3
RELATED PROJECTS TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

8.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed Covina Bowl Specific Plan, a multi-step process has been utilized. The first step of the forecasting process is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is typically forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational (i.e., Levels of Service) conditions at selected key intersections using existing and expected future traffic volumes with and without forecast project traffic. The need for site-specific traffic improvements can then be evaluated and the significance of the project's impacts identified.

8.1 Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Traffic volumes expected to be generated by the proposed project during the weekday AM and PM peak hours, as well as on a daily basis for a weekday, were estimated using rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*⁷. Traffic volumes expected to be generated by the proposed project were based upon rates per dwelling unit or gross square footage, as appropriate. ITE Land Use Code 221 (Multifamily Housing [Mid-Rise]), ITE Land Use Code 710 (General Office), and ITE Land Use Code 936 (Coffee/Donut Shop without Drive-Through) trip generation average rates were used to forecast the traffic volumes expected to be generated by the proposed near-term development within Planning Areas 1 and 2.

8.1.1 Planning Areas 1 and 2 Trip Generation

The trip generation rates and forecast vehicular trip generation associated with the proposed project are presented in **Table 8-1**. The project trip generation forecast was submitted for review and approval by City staff. As summarized in *Table 8-1*, the proposed project within Planning

⁷ Institute of Transportation Engineers *Trip Generation Manual*, 10th Edition, 2017.

Table 8-1
PROJECT TRIP GENERATION [1]
PLANNING AREAS 1 AND 2

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Planning Areas 1 and 2</i>								
Residential Townhome [3]	132 DU	718	12	36	48	35	23	58
Office [4]	11,050 GSF	108	11	2	13	2	11	13
Coffee Shop [5]	950 GSF	340	49	47	96	17	17	34
Less Internal Capture/Pass-by Adjustment (25%) [6]		(85)	(12)	(12)	(24)	(4)	(4)	(8)
TOTAL		1,081	60	73	133	50	47	97

[1] Source: ITE "Trip Generation Manual", 10th Edition, 2017.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 221 (Multifamily Housing [Mid-Rise]) trip generation average rates.

- Daily Trip Rate: 5.44 trips/dwelling unit; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.36 trips/dwelling unit; 26% inbound/74% outbound
- PM Peak Hour Trip Rate: 0.44 trips/dwelling unit; 61% inbound/39% outbound

[4] ITE Land Use Code 710 (General Office) trip generation average rates.

- Daily Trip Rate: 9.74 trips/1,000 SF of gross floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 1.16 trips/1,000 SF of gross floor area; 86% inbound/14% outbound
- PM Peak Hour Trip Rate: 1.15 trips/1,000 SF of gross floor area; 16% inbound/84% outbound

[5] ITE Land Use Code 936 (Coffee/Donut Shop without Drive-Through) trip generation average rates.

- Daily Trip Rate: Not available; PM peak hour trip rates assumed to be 10 percent of total daily trips.
- AM Peak Hour Trip Rate: 101.14 trips/1,000 SF of gross floor area; 51% inbound/49% outbound
- PM Peak Hour Trip Rate: 36.31 trips/1,000 SF of gross floor area; 50% inbound/50% outbound

[6] An internal trip adjustment was included to account for the synergistic effects between the office, residential, and coffee shop land use components.

The internal capture adjustment factor of 25 percent was applied to the coffee shop component.

Areas 1 and 2 is expected to generate 133 new vehicle trips (60 inbound trips and 73 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the proposed project is expected to generate 97 new vehicle trips (50 inbound trips and 47 outbound trips). Over a 24-hour period, the proposed project is forecast to generate approximately 1,081 new daily trip ends during a typical weekday.

8.1.2 Planning Area 3 Trip Generation

The trip generation potential within Planning Area 3 was considered for potential maximum build-out assuming all residential or all retail use (i.e., Options A and B) in order to compare the trip generation potentials. The retail use option (i.e., Option B) was utilized in the analysis as it provides a more conservative forecast of potential project trip generation. As summarized in **Table 8-2**, Planning Area 3 is expected to result in a net decrease of one vehicle trip (2 fewer inbound trips and one outbound trip) during the weekday AM peak hour. During the weekday PM peak hour, Planning Area 3 is expected to generate 11 net new vehicle trips (7 inbound trips and 4 outbound trips). Over a 24-hour period, Planning Area 3 is forecast to generate approximately 118 net new daily trip ends during a typical weekday.

8.1.3 Planning Area 4 Trip Generation

Similar to Planning Area 3, the trip generation potential within Planning Area 4 was considered for potential maximum build-out assuming all residential or all retail use (i.e., Options A and B) of this area. Similarly, the retail use option (i.e., Option B) was utilized in the analysis as it provides a more conservative forecast of potential project trip generation. As summarized in **Table 8-3**, Planning Area 4 is expected to result in a net decrease of 22 vehicle trips (6 fewer inbound trips and 16 fewer outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, Planning Area 4 is expected to generate 83 net new vehicle trips (31 inbound trips and 52 outbound trips). Over a 24-hour period, Planning Area 4 is forecast to generate approximately 716 net new daily trip ends during a typical weekday.

8.2 Project Traffic Distribution and Assignment

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations for each planning area:

- The site's proximity to major traffic corridors (i.e., San Bernardino Road, Badillo Street, Azusa Avenue, etc.);
- Expected traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Proposed ingress/egress planned for each planning area;
- Nearby population and employment centers; and

Table 8-2
SPECIFIC PLAN BUILDOUT TRIP GENERATION [1]
Planning Area 3 - Options A and B

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Planning Area 3 - Option A Residential [3] - Less Existing Office [4]	11 DU (4,175) GSF	60 (40)	1 (4)	3 (1)	4 (5)	3 (1)	2 (4)	5 (5)
Option A Net Total		20	(3)	2	(1)	2	(2)	0
Planning Area 3 - Option B Retail [5] - Less Existing Office [4]	4,175 GLSF (4,175) GSF	158 (40)	2 (4)	2 (1)	4 (5)	8 (1)	8 (4)	16 (5)
Option B Net Total		118	(2)	1	(1)	7	4	11

[1] Source: ITE "Trip Generation Manual", 10th Edition, 2017.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 221 (Multifamily Housing [Mid-Rise]) trip generation average rates.

- Daily Trip Rate: 5.44 trips/dwelling unit; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.36 trips/dwelling unit; 26% inbound/74% outbound
- PM Peak Hour Trip Rate: 0.44 trips/dwelling unit; 61% inbound/39% outbound

[4] ITE Land Use Code 710 (General Office) trip generation average rates.

- Daily Trip Rate: 9.74 trips/1,000 SF of gross floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 1.16 trips/1,000 SF of gross floor area; 86% inbound/14% outbound
- PM Peak Hour Trip Rate: 1.15 trips/1,000 SF of gross floor area; 16% inbound/84% outbound

[5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.

- Daily Trip Rate: 37.75 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.94 trips/1,000 SF of floor area; 62% inbound/38% outbound
- PM Peak Hour Trip Rate: 3.81 trips/1,000 SF of floor area; 48% inbound/52% outbound

Table 8-3
SPECIFIC PLAN BUILDOUT TRIP GENERATION [1]
Planning Area 4 - Options A and B

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Planning Area 4 - Option A Residential [3] - Less Existing Apartment [3] - Less Existing Restaurant [4]	52 DU (31) DU (4,652) GSF	282 (168) (522)	5 (3) (25)	14 (8) (21)	19 (11) (46)	14 (9) (28)	9 (5) (17)	23 (14) (45)
Option A Net Total		(408)	(23)	(15)	(38)	(23)	(13)	(36)
Planning Area 4 - Option B Retail [5] - Less Existing Apartment [3] - Less Existing Restaurant [4]	37,244 GLSF (31) DU (4,652) GSF	1,406 (168) (522)	22 (3) (25)	13 (8) (21)	35 (11) (46)	68 (9) (28)	74 (5) (17)	142 (14) (45)
Option B Net Total		716	(6)	(16)	(22)	31	52	83

[1] Source: ITE "Trip Generation Manual", 10th Edition, 2017.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 221 (Multifamily Housing [Mid-Rise]) trip generation average rates.

- Daily Trip Rate: 5.44 trips/dwelling unit; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.36 trips/dwelling unit; 26% inbound/74% outbound
- PM Peak Hour Trip Rate: 0.44 trips/dwelling unit; 61% inbound/39% outbound

[4] ITE Land Use Code 932 (High-Turnover [Sit-Down] Restaurant) trip generation average rates.

- Daily Trip Rate: 112.18 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 9.94 trips/1,000 SF of floor area; 55% inbound/45% outbound
- PM Peak Hour Trip Rate: 9.77 trips/1,000 SF of floor area; 62% inbound/38% outbound

[5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.

- Daily Trip Rate: 37.75 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.94 trips/1,000 SF of floor area; 62% inbound/38% outbound
- PM Peak Hour Trip Rate: 3.81 trips/1,000 SF of floor area; 48% inbound/52% outbound

- Input from City staff.

The project traffic volume distribution percentages during weekday AM and PM peak hours at the study intersections are illustrated in **Figure 8-1** for Planning Areas 1 and 2, **Figure 8-2** for Planning Area 3 and **Figure 8-3** for Planning Area 4. The forecast new weekday AM and PM peak hour project traffic volumes associated with the build-out of the near-term Covina Bowl development within Planning Areas 1 and 2 are presented in **Figures 8-4** and **8-5**, respectively. The traffic volume assignments presented in **Figures 8-4** and **8-5** reflect the traffic distribution characteristics shown in **Figure 8-1** and the project traffic generation forecast presented in **Table 8-1**. The forecast total weekday AM and PM peak hour project traffic volumes associated with the build-out of the Specific Plan for all four planning areas combined (Planning Areas 1, 2, 3, and 4) are shown in **Figures 8-6** and **8-7**, respectively.

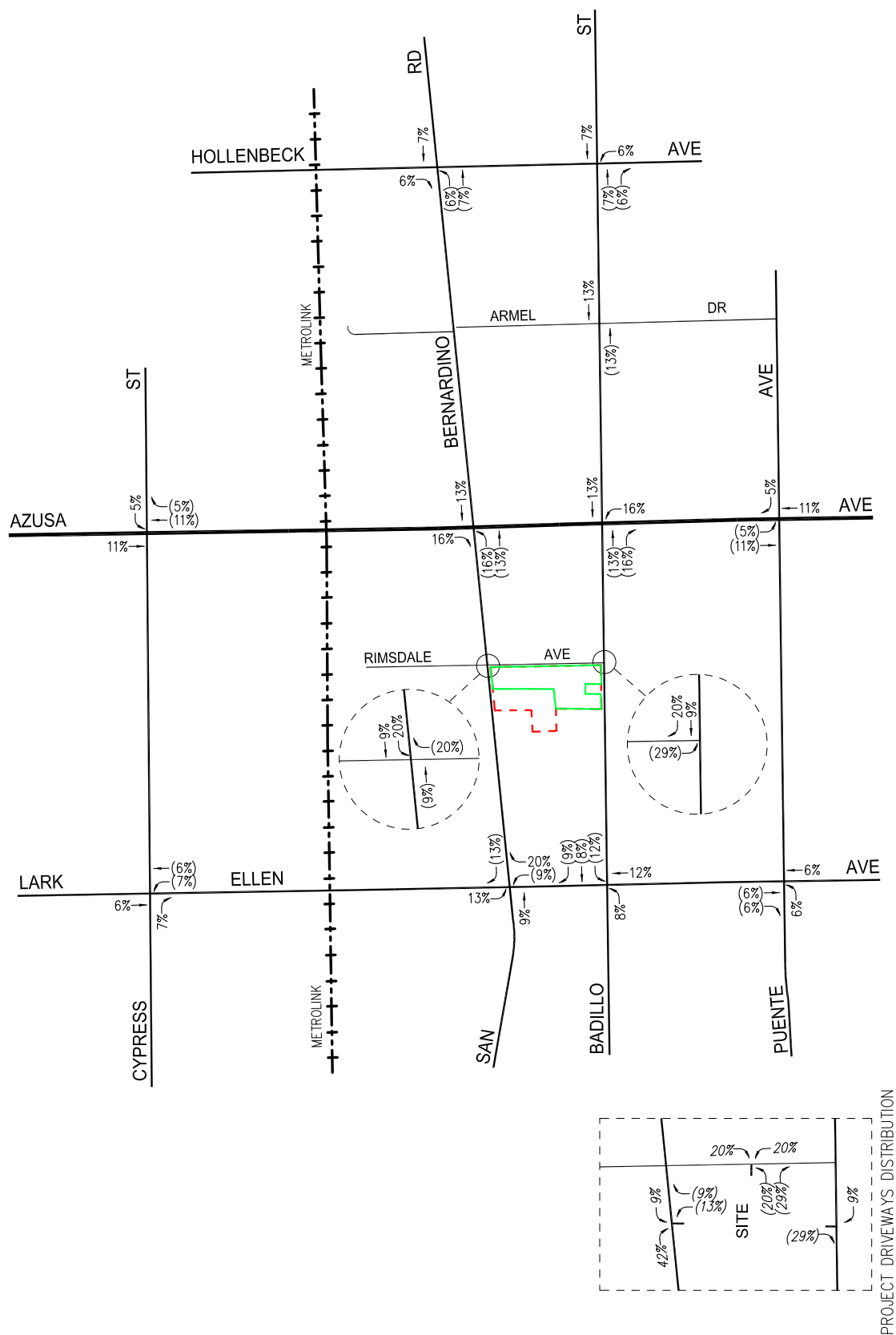


FIGURE 8-1
PROJECT TRIP DISTRIBUTION
(PLANNING AREAS 1 AND 2)
COVINA BOWL SPECIFIC PLAN PROJECT

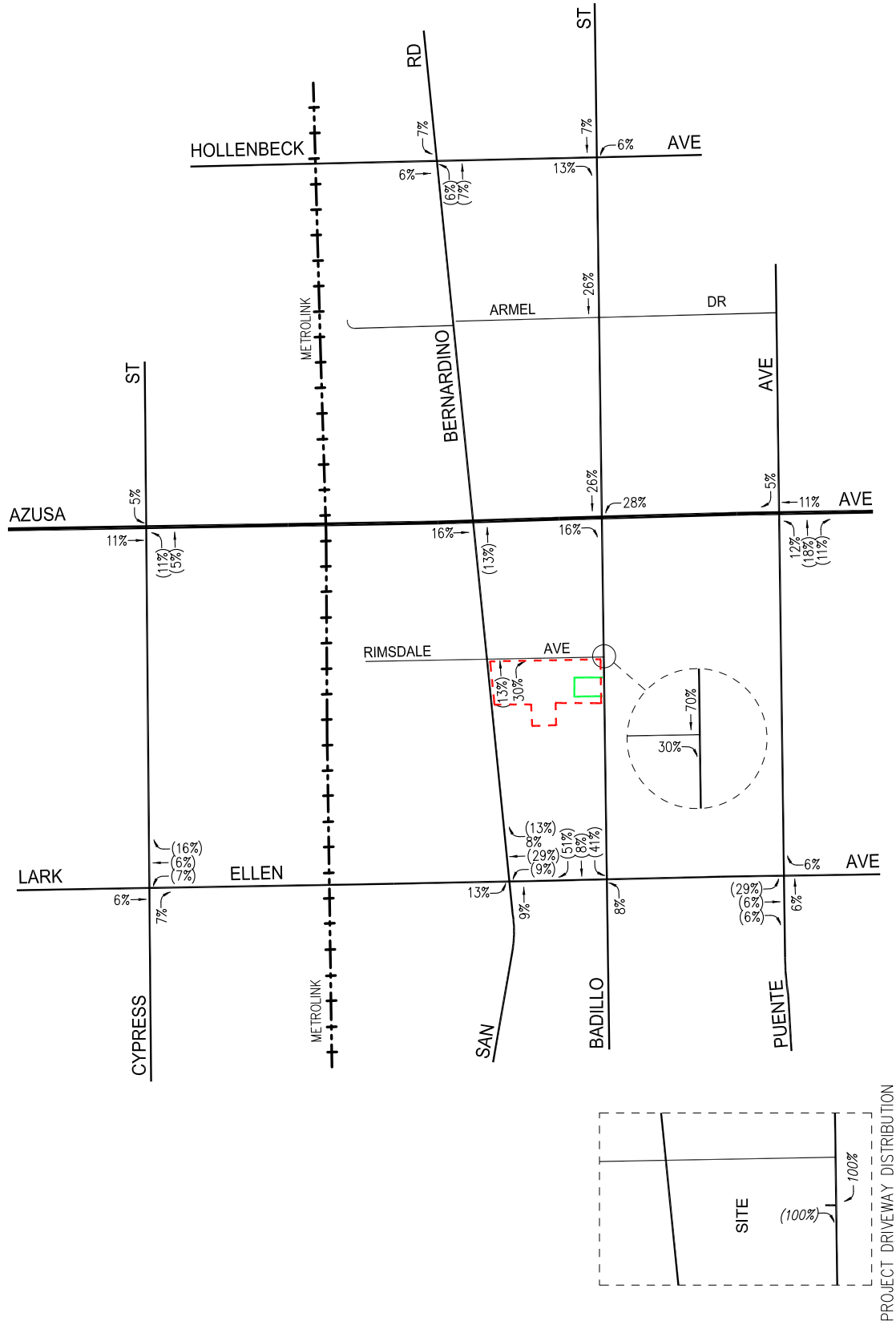


FIGURE 8-2
PROJECT TRIP DISTRIBUTION
(PLANNING AREA 3)
COVINA BOWL SPECIFIC PLAN PROJECT

NOT TO SCALE

SPECIFIC PLAN BOUNDARY

PLANNING AREA 3

XX = INBOUND PERCENTAGE

(XX) = OUTBOUND PERCENTAGE

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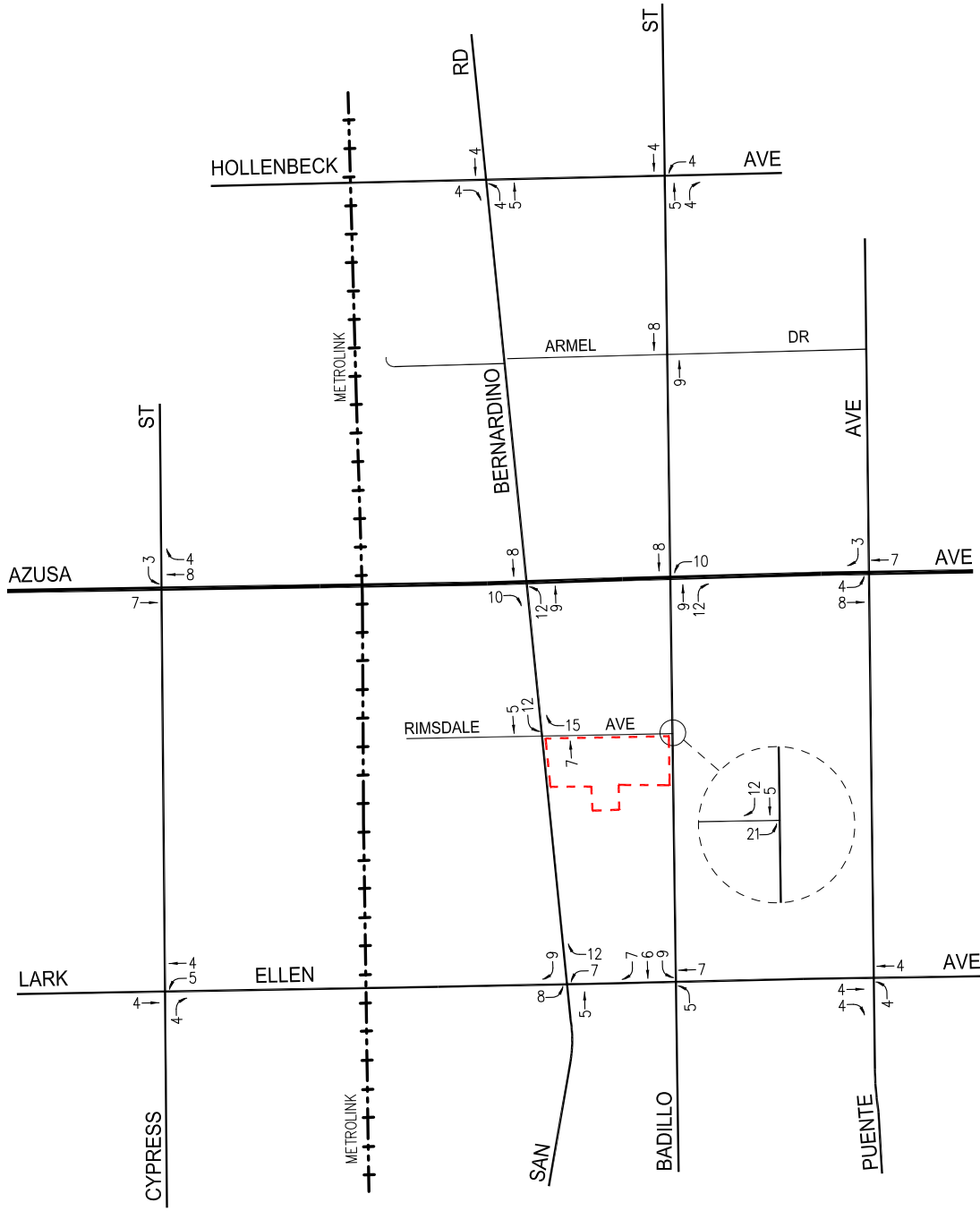


FIGURE 8-4
NEAR-TERM PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT



SPECIFIC PLAN BOUNDARY



NOT TO SCALE

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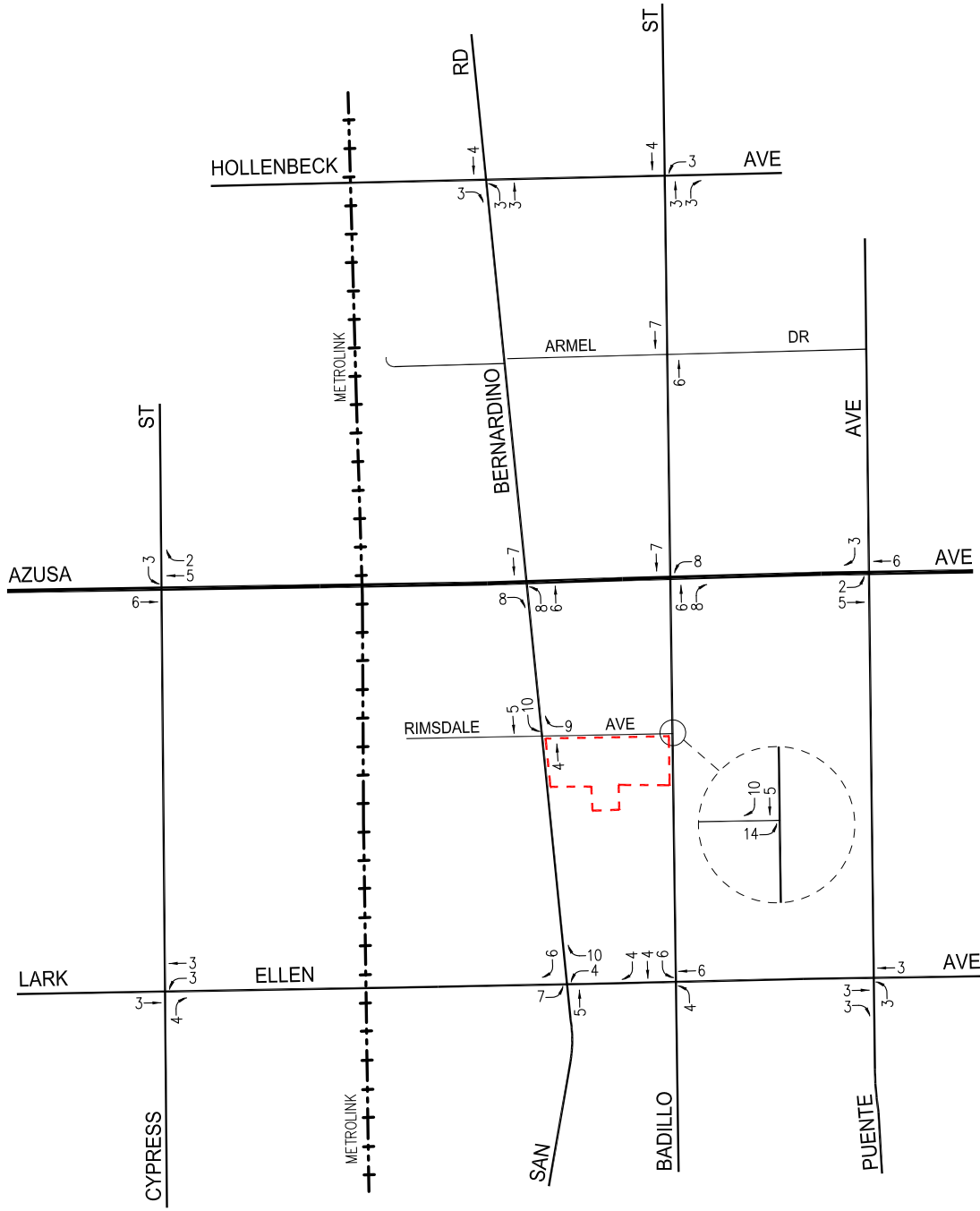


FIGURE 8-5
NEAR-TERM PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE

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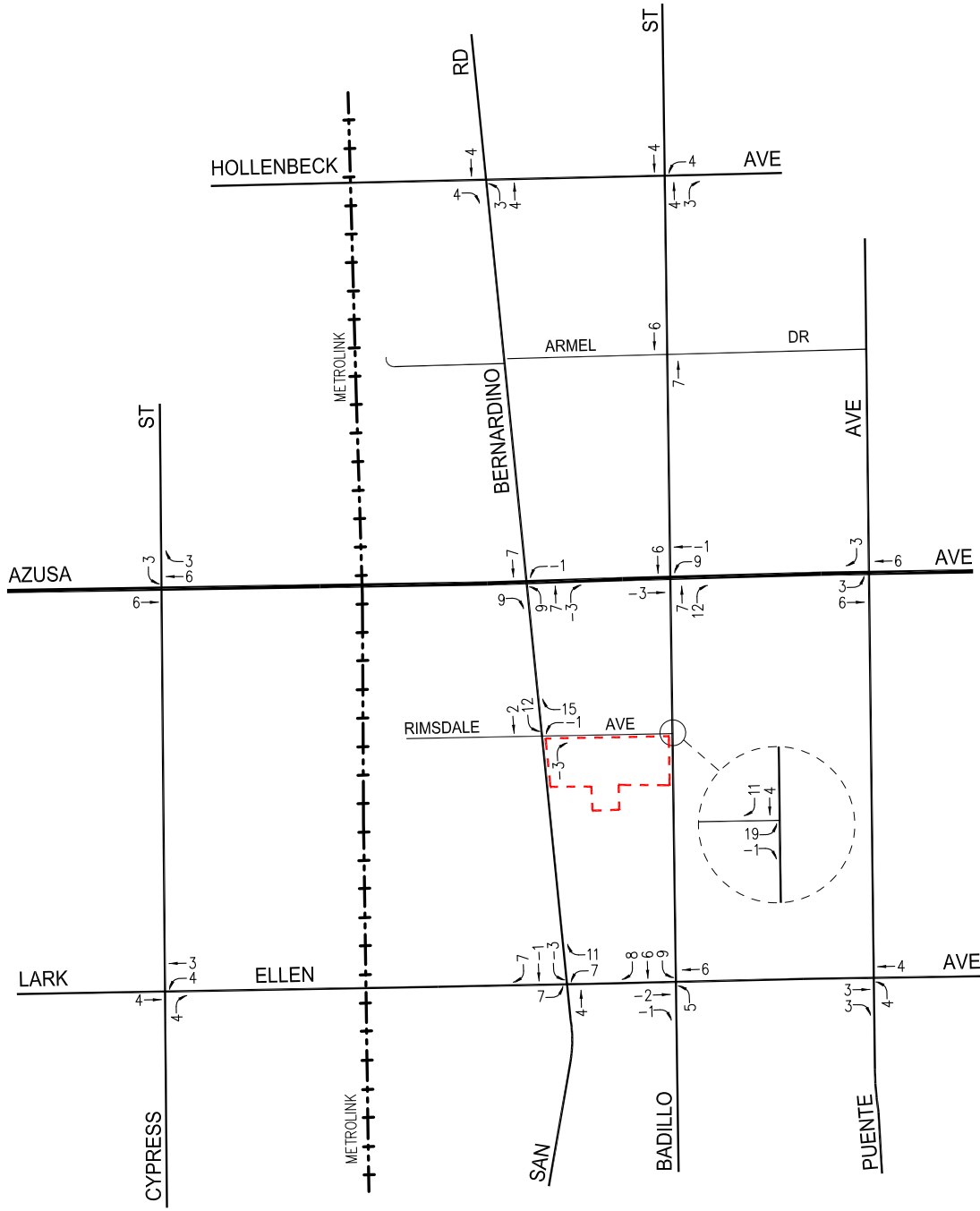


FIGURE 8-6
SPECIFIC PLAN BUILD-OUT PROJECT TRAFFIC VOLUMES
PLANNING AREAS 1, 2, 3, 4
WEEKDAY AM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



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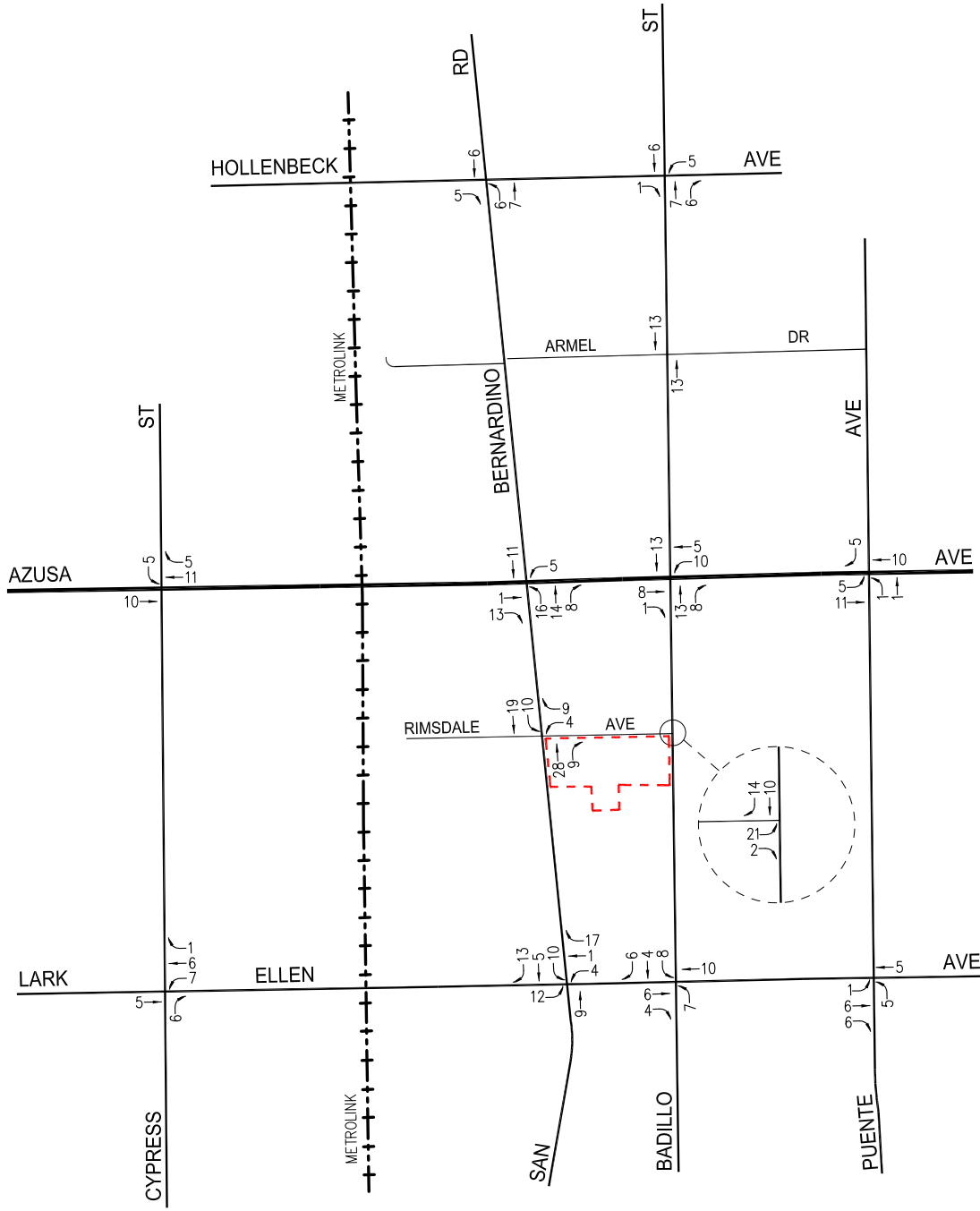


FIGURE 8-7
SPECIFIC PLAN BUILD-OUT PROJECT TRAFFIC VOLUMES
PLANNING AREAS 1, 2, 3, 4
WEEKDAY PM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT



SPECIFIC PLAN BOUNDARY



NOT TO SCALE

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9.0 TRANSPORTATION IMPACT ANALYSIS METHODOLOGY

9.1 Signalized Intersections

As previously noted, 12 of 13 study intersections are currently signalized. Pursuant to the City's traffic study guidelines, signalized study intersections are typically evaluated using the Intersection Capacity Utilization (ICU) method of analysis. The ICU method determines the Volume-to-Capacity (v/c) ratios on a critical lane basis (i.e., based on the individual v/c ratios for key conflicting traffic movements). The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The overall intersection v/c ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in **Table 9-1**. Detailed description of the ICU method and corresponding Levels of Service is provided in **Appendix C**. As directed by the City of Covina's *Traffic Impact Analysis Guidelines* (May 2014), the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and a dual turn-lane capacity of 2,880 vph. A clearance interval of 0.05 also is included in the ICU calculations.

TABLE 9-1
LEVEL OF SERVICE CRITERIA AND ICU CHARACTERISTICS

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

9.2 Unsignalized Intersection

One remaining study intersection is currently unsignalized. The respective *Highway Capacity Manual* (HCM) methodologies outlined in Chapter 19 for unsignalized/two-way stop-controlled (TWSC) intersections were utilized for the analysis of the unsignalized location. The TWSC methodology estimates the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns and determines the LOS for each constrained movement. Average control delay for any particular movement is a function of the capacity of the approach and the degree of saturation. The average control delay is measured in seconds per vehicle, and includes delay due to deceleration to a stop at the back of the queue from free-flow speed, move-up time within the queue, stopped delay at the front of the queue, and delay due to acceleration back to free-flow speed. The six qualitative categories of Level of Service have been defined along with the corresponding HCM2010 control delay value range, as shown in *Table 9-2*:

TABLE 9-2
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service (LOS)	Control Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

Average control delay for any particular movement is a function of the capacity of the approach and the degree of saturation. The average control delay is measured in seconds per vehicle, and includes delay due to deceleration to a stop at the back of the queue from free-flow speed, move-up time within the queue, stopped delay at the front of the queue, and delay due to acceleration back to free-flow speed. Detailed description of the HCM method and corresponding Level of Service is also provided in *Appendix C*.

9.3 Impact Criteria and Thresholds

The relative impact of the added project traffic volumes anticipated to be generated by both the near-term project development within Planning Areas 1 and 2 and the full build-out of all four planning areas within the Specific Plan during the weekday AM and PM peak hours was evaluated based on analysis of existing and future operating conditions at the study intersections, without and with the proposed project. The previously discussed capacity analysis procedures were utilized to evaluate the future v/c or delay relationships and service level characteristics at each study intersection.

As indicated previously, seven (7) of the 13 study intersections are located solely within the City of Covina, two (2) study intersections are located solely within the City of West Covina, three (3) study intersections are shared between the Cities of Covina and West Covina, and one (1) study intersection is located solely within the unincorporated area of the County of Los Angeles. Each study intersection was evaluated for potential traffic impacts with application of the significant traffic impact criteria utilized in the jurisdiction of the intersection (e.g., study intersections in the City of Covina were evaluated for potential traffic impacts using the criteria of the City of Covina, etc.).

9.3.1 City of Covina Impact Criteria and Thresholds

The significance of the potential impacts of project-generated traffic at the City of Covina study intersections was identified using the traffic impact criteria set forth in the City of Covina's *Traffic Impact Analysis Guidelines* (May 2014). According to the City's traffic study guidelines, a significant transportation impact is determined based on the impact threshold criteria presented in *Table 9-3*.

TABLE 9-3 CITY OF COVINA SIGNALIZED INTERSECTION IMPACT THRESHOLD CRITERIA		
Pre-Project v/c	Level of Service	Project Related Increase in v/c
0.71 to 0.80	C	equal to or greater than 0.04
0.81 to 0.90	D	equal to or greater than 0.02
0.91 or more	E / F	equal to or greater than 0.01
UNSIGNALIZED INTERSECTION IMPACT THRESHOLD CRITERIA		
Pre-Project Delay	Level of Service	Project Related Increase in Delay
≤ 25.0 seconds	A/B/C	LOS D or worse
> 25.0 seconds	D/E/F	equal to or greater than 5.0 seconds

The City's traffic study guidelines require mitigation of project traffic impacts whenever traffic generated by the proposed development exceeds the criteria above.

9.3.2 City of West Covina Impact Criteria and Thresholds

The significance of the potential impacts of project-generated traffic at the City of West Covina study intersections was identified using the traffic impact criteria as summarized below. According to the City of West Covina, a significant transportation impact is determined based on the impact threshold criteria presented in *Table 9-4*.

TABLE 9-4 CITY OF WEST COVINA INTERSECTION IMPACT THRESHOLD CRITERIA		
Final v/c	Level of Service	Project Related Increase in v/c
> 0.800	D, E, F	equal to or greater than 0.02

The City's method requires mitigation of project traffic impacts whenever traffic generated by the proposed development exceeds the criteria above.

9.3.3 County of Los Angeles Impact Criteria and Thresholds

The significance of the potential impacts of project-generated traffic at the County of Los Angeles study intersection was identified using the traffic impact criteria as summarized below. According to the traffic impact analysis guidelines set forth in the County of Los Angeles Department of Public Works' *Traffic Impact Analysis Report Guidelines*, January 1997, the impact is considered significant if the project-related increase in the v/c ratio equals or exceeds the threshold criteria presented in *Table 9-5*.

TABLE 9-5 COUNTY OF LOS ANGELES INTERSECTION IMPACT THRESHOLD CRITERIA		
Pre-Project v/c	Level of Service	Project Related Increase in v/c
> 0.70 - 0.80	C	equal to or greater than 0.04
> 0.80 - 0.90	D	equal to or greater than 0.02
> 0.90	E and F	equal to or greater than 0.01

Similar to the other agencies, the County's Sliding Scale Method requires mitigation of project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection v/c ratio by an amount equal to or greater than the values shown above.

9.4 Transportation Impact Analysis Scenarios

Level of Service calculations have been prepared for the following scenarios for the study intersections for the near-term build-out of Planning Areas 1 and 2 as well as the future build-out of all four planning areas within the Covina Bowl Specific Plan area:

- (a) Existing (2019) conditions.
- (b) Condition (a) with completion and occupancy of Planning Areas 1 and 2.
- (c) Condition (a) with completion and occupancy of Planning Areas 1, 2, 3, and 4.

- (d) Condition (a) plus one percent (1.0%) annual ambient traffic growth through year 2024 and with completion and occupancy of the related projects (i.e., future cumulative baseline).
- (e) Condition (a) plus one percent (1.0%) annual ambient traffic growth through year 2024 and one-half percent (0.5%) annual ambient traffic growth from year 2024 through year 2040, along with completion and occupancy of the related projects (i.e., future cumulative baseline).
- (f) Condition (d) with completion and occupancy of Planning Areas 1 and 2.
- (g) Condition (e) with completion and occupancy of Planning Areas 1, 2, 3, and 4.
- (h) Condition (d) and (f) with implementation of project mitigation measures, where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

10.0 TRANSPORTATION ANALYSIS

The transportation impact analysis prepared for the study intersections using the ICU methodology and application of the respective agencies' significant traffic impact criteria (i.e., or the more stringent of the criteria for intersections under joint jurisdiction) is summarized in **Table 10-1** for the near-term development of Planning Areas 1 and 2 and **Table 10-2** for the build-out of the Specific Plan (i.e., for Planning Areas 1, 2, 3, and 4). The ICU data worksheets for the analyzed intersections are contained in *Appendix C*.

10.1 Existing Conditions

10.1.1 Existing Conditions

As indicated in column [1] of *Table 10-1*, 12 of the study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. One of the study intersections (i.e., Intersection No. 10: Azusa Avenue/Puente Avenue) is currently operating at LOS E during the weekday PM peak hour. As previously mentioned, the existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 6-1* and *6-2*, respectively.

10.1.2 Existing With Project (Planning Areas 1 and 2) Conditions

As shown in column [2] of *Table 10-1*, application of the City's threshold criteria to the "Existing With Project (Planning Areas 1 and 2)" scenario indicates that the proposed project is not expected to create significant impacts at any of the study intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the "Existing With Project (Planning Areas 1 and 2)" condition. The existing with project traffic volumes at the study intersections during the weekday AM and PM peak hours are provided in *Figures 10-1* and *10-2*, respectively.

10.1.3 Existing With Project (Planning Areas 1, 2, 3, and 4) Conditions

As shown in column [2] of *Table 10-2*, application of the City's threshold criteria to the "Existing With Project (Planning Areas 1, 2, 3, 4)" scenario indicates that the proposed project is not expected to create significant impacts at any of the study intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the "Existing With Project (Planning Areas 1, 2, 3, 4)" condition. The existing with project traffic volumes at the study intersections during the weekday AM and PM peak hours are provided in *Figures 10-3* and *10-4*, respectively.

10.2 Future (2024) Near-Term Conditions

10.2.1 Future Without Project Conditions

The future without project conditions were forecast based on the addition of traffic generated by the completion and occupancy of the related projects, as well as the growth in traffic due to the

Table 10-1
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
NEAR-TERM (2024) WITH PROJECT BUILD-OUT SCENARIO
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	PEAK HOUR	[1]			[2]			[3]			[4]		
			YEAR 2019 EXISTING V/C or DELAY	LOS	YEAR 2019 EXISTING W/ PROJECT V/C or Delay	LOS	CHANGE V/C or DELAY [2]-(1)	SIGNIF. IMPACT	YEAR 2024 FUTURE PRE-PROJECT V/C or DELAY	LOS	YEAR 2024 FUTURE W/ PROJECT V/C or DELAY	LOS	CHANGE V/C or DELAY [4]-(3)	SIGNIF. IMPACT
1	Lark Ellen Avenue / Cypress Street [c]	AM PM	0.697 0.765	B C	0.701 0.767	C C	0.004 0.002	No No	0.732 0.806	C D	0.736 0.808	C D	0.004 0.002	No No
2	Lark Ellen Avenue / San Bernardino Road [a,b]	AM PM	0.639 0.666	B B	0.650 0.675	B B	0.011 0.009	No No	0.677 0.708	B C	0.688 0.717	B C	0.011 0.009	No No
3	Lark Ellen Avenue / Badillo Street [a,b]	AM PM	0.650 0.727	B C	0.659 0.732	B C	0.009 0.005	No No	0.681 0.763	B C	0.690 0.768	B C	0.009 0.005	No No
4	Lark Ellen Avenue / Puente Avenue [b]	AM PM	0.624 0.643	B B	0.629 0.645	B B	0.005 0.002	No No	0.657 0.676	B B	0.662 0.678	B B	0.005 0.002	No No
5	Rimsdale Avenue / San Bernardino Road [a]	AM PM	0.374 0.544	A A	0.385 0.557	A A	0.011 0.013	No No	0.397 0.578	A A	0.408 0.591	A A	0.011 0.013	No No
6	Rimsdale Avenue / Badillo Street [a]	AM PM	0.531 0.457	A A	0.546 0.466	A A	0.015 0.009	No No	0.558 0.480	A A	0.573 0.489	A A	0.015 0.009	No No
7	Azusa Avenue / Cypress Street [a]	AM PM	0.649 0.714	B C	0.651 0.718	B C	0.002 0.004	No No	0.689 0.763	B C	0.691 0.767	B C	0.002 0.004	No No
8	Azusa Avenue / San Bernardino Road [a]	AM PM	0.669 0.678	B B	0.682 0.683	B B	0.013 0.005	No No	0.712 0.727	C C	0.725 0.731	C C	0.013 0.004	No No

Table 10-1 (Continued)
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
NEAR-TERM (2024) WITH PROJECT BUILD-OUT SCENARIO
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	PEAK HOUR	[1]		[2]			[3]		[4]				
			YEAR 2019 EXISTING V/C or DELAY	LOS	YEAR 2019 EXISTING W/ PROJECT V/C or Delay	LOS	CHANGE V/C or DELAY [(2)-(1)]	SIGNIF. IMPACT	YEAR 2024 FUTURE PRE-PROJECT V/C or DELAY	LOS	YEAR 2024 FUTURE W/ PROJECT V/C or DELAY	LOS	CHANGE V/C or DELAY [(4)-(3)]	SIGNIF. IMPACT
9	Azusa Avenue / Badillo Street [a,b]	AM PM	0.775 0.829	C D	0.784 0.838	C D	0.009 0.009	No No	0.820 0.878	D D	0.829 0.887	D D	0.009 0.009	No No
10	Azusa Avenue / Puente Avenue [b]	AM PM	0.872 0.903	D E	0.876 0.904	D E	0.004 0.001	No No	0.930 0.958	E E	0.934 0.959	E E	0.004 0.001	No No
11	Arnel Drive/ Badillo Street [a,d]	AM PM	33.3 32.3	D D	34.1 32.9	D D	0.8 0.6	No No	36.7 36.4	E E	37.7 37.1	E E	1.0 0.7	No No
12	Hollenbeck Avenue / San Bernardino Road [a]	AM PM	0.771 0.847	C D	0.776 0.851	C D	0.005 0.004	No No	0.837 0.916	D E	0.842 0.920	D E	0.005 0.004	No No
13	Hollenbeck Avenue / Badillo Street [a]	AM PM	0.657 0.706	B C	0.659 0.708	B C	0.002 0.002	No No	0.700 0.749	B C	0.703 0.751	C C	0.003 0.002	No No

[a] City of Covina intersection impact threshold criteria is as follows:

Signalized intersections:		Pre-Project V/C	Project-Related Increase in V/C
C	> 0.700 - 0.800	equal to or greater than 0.040	
D	> 0.800 - 0.900	equal to or greater than 0.020	
E/F	> 0.900	equal to or greater than 0.010	

[b] City of West Covina intersection impact threshold criteria is as follows:

Level of Service		Final V/C	Project-Related Increase in V/C
D/E/F	> 0.800	equal to or greater than 0.020	

[c] According to the County of Los Angeles Department of Public Works' *Traffic Impact Analysis Report Guidelines*, January 1, 1997, page 6: an impact is considered

significant if the project-related increase in the volume-to-capacity ratio (v/c) equals or exceeds the thresholds shown below:

Level of Service		Pre-Project ICU	Project-Related Increase in V/C
C	> 0.700 - 0.800	equal to or greater than 0.040	
D	> 0.800 - 0.900	equal to or greater than 0.020	
E/F	> 0.900	equal to or greater than 0.010	

[d] Unsignalized intersection. Two-way stop controlled.

Unsignalized intersections:		Pre-Project Delay	Project-Related Increase in Delay
A/B/C	≤ 25.0 sec.	LOS D or worse	
D/E/F	> 25.0 sec.	equal to or greater than 5.0 seconds	

Table 10-2
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
WITH SPECIFIC PLAN PROJECT BUILD-OUT (2040) SCENARIO
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	PEAK HOUR	[1]		[2]		[3]		[4]		[5]							
			YEAR 2019 EXISTING V/C or DELAY	LOS	YEAR 2019 EXISTING W/ PROJECT V/C or Delay	LOS	CHANGE V/C or DELAY [2)-(1)]	SIGNIF. IMPACT	YEAR 2040 PRE-PROJECT V/C or DELAY	LOS	YEAR 2040 FUTURE W/ PROJECT V/C or DELAY	LOS	CHANGE V/C or DELAY [4)-(3)]	SIGNIF. IMPACT	FUTURE W/ PROJECT MITIGATION V/C or DELAY	LOS	CHANGE V/C or DELAY [5)-(3)]	MITIGATED
1	Lark Ellen Avenue / Cypress Street [c]	AM PM	0.697 0.765	B C	0.700 0.769	B C	0.003 0.004	No No	0.783 0.864	C D	0.787 0.868	C D	0.004 0.004	No No	0.787 0.868	C D	0.004 0.004	--- ---
2	Lark Ellen Avenue / San Bernardino Road [a,b]	AM PM	0.639 0.666	B B	0.648 0.688	B B	0.009 0.022	No No	0.728 0.761	C C	0.738 0.783	C C	0.010 0.022	No No	0.738 0.783	C C	0.010 0.022	--- ---
3	Lark Ellen Avenue / Badillo Street [a,b]	AM PM	0.650 0.727	B C	0.659 0.735	B C	0.009 0.008	No No	0.728 0.816	C D	0.738 0.824	C D	0.010 0.008	No No	0.738 0.824	C D	0.010 0.008	--- ---
4	Lark Ellen Avenue / Puente Avenue [b]	AM PM	0.624 0.643	B B	0.629 0.647	B B	0.005 0.004	No No	0.703 0.723	C C	0.708 0.727	C C	0.005 0.004	No No	0.708 0.727	C C	0.005 0.004	--- ---
5	Rimsdale Avenue / San Bernardino Road [a]	AM PM	0.374 0.544	A A	0.383 0.570	A A	0.009 0.026	No No	0.425 0.621	A B	0.434 0.647	A B	0.009 0.026	No No	0.434 0.647	A B	0.009 0.026	--- ---
6	Rimsdale Avenue / Badillo Street [a]	AM PM	0.531 0.457	A A	0.544 0.471	A A	0.013 0.014	No No	0.600 0.515	A A	0.612 0.530	B A	0.012 0.015	No No	0.612 0.530	B A	0.012 0.015	--- ---
7	Azusa Avenue / Cypress Street [a]	AM PM	0.649 0.714	B C	0.651 0.721	B C	0.002 0.007	No No	0.741 0.821	C D	0.743 0.828	C D	0.002 0.007	No No	0.743 0.828	C D	0.002 0.007	--- ---
8	Azusa Avenue / San Bernardino Road [a]	AM PM	0.669 0.678	B B	0.679 0.693	B B	0.010 0.015	No No	0.766 0.782	C C	0.776 0.797	C C	0.010 0.015	No No	0.776 0.797	C C	0.010 0.015	--- ---
9	Azusa Avenue / Badillo Street [a,b]	AM PM	0.775 0.829	C D	0.782 0.845	C D	0.007 0.016	No No	0.883 0.946	D E	0.890 0.961	D E	0.007 0.015	No Yes	0.790 0.847	C D	-0.093 -0.099	--- Yes
10	Azusa Avenue / Puente Avenue [b]	AM PM	0.872 0.903	D E	0.875 0.907	D E	0.003 0.004	No No	0.997 1.028	E F	1.000 1.032	E F	0.003 0.004	No No	1.000 1.032	E F	0.003 0.004	--- ---
11	Arnel Drive/ Badillo Street [a,d]	AM PM	33.3 32.3	D D	33.9 33.5	D D	0.6 1.2	No No	52.1 44.2	F E	53.3 46.1	F E	1.2 1.9	No No	53.3 46.1	F E	1.2 1.9	--- ---

Table 10-2 (Continued)
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
WITH SPECIFIC PLAN PROJECT BUILD-OUT (2040) SCENARIO
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	PEAK HOUR	[1]		[2]		[3]		[4]		[5]							
			YEAR 2019 EXISTING V/C or DELAY	LOS	YEAR 2019 EXISTING W/ PROJECT V/C or Delay	LOS	CHANGE V/C or DELAY [(2)-(1)]	SIGNIF. IMPACT	YEAR 2040 FUTURE PRE-PROJECT V/C or DELAY	LOS	CHANGE V/C or DELAY [(4)-(3)]	SIGNIF. IMPACT	YEAR 2040 FUTURE W/ PROJECT V/C or DELAY	LOS	CHANGE V/C or DELAY [(5)-(3)]	SIGNIF. IMPACT		
12	Hollenbeck Avenue / San Bernardino Road [a]	AM PM	0.771 0.847	C D	0.776 0.854	C D	0.005 0.007	No No	0.900 0.986	D E	0.904 0.993	E E	0.004 0.007	No No	0.904 0.993	E E	0.004 0.007	--- ---
13	Hollenbeck Avenue / Badillo Street [a]	AM PM	0.657 0.706	B C	0.659 0.710	B C	0.002 0.004	No No	0.753 0.807	C D	0.755 0.811	C D	0.002 0.004	No No	0.755 0.811	C D	0.002 0.004	--- ---

[a] City of Covina intersection impact threshold criteria is as follows:

Signalized intersections:

Level of Service
Pre-Project V/C
> 0.700 - 0.800
> 0.800 - 0.900
> 0.900
C
D
E/F

Project-Related Increase in V/C
equal to or greater than 0.040
equal to or greater than 0.020
equal to or greater than 0.010

Unsignalized intersections:

Level of Service
A/B/C
D/E/F

Pre-Project Delay
≤ 25.0 sec.
> 25.0 sec.

Project-Related Increase in Delay
LOS D or worse
equal to or greater than 5.0 seconds

[b] City of West Covina intersection impact threshold criteria is as follows:

Level of Service
Final V/C
> 0.800
D/E/F

Project-Related Increase in V/C
equal to or greater than 0.020

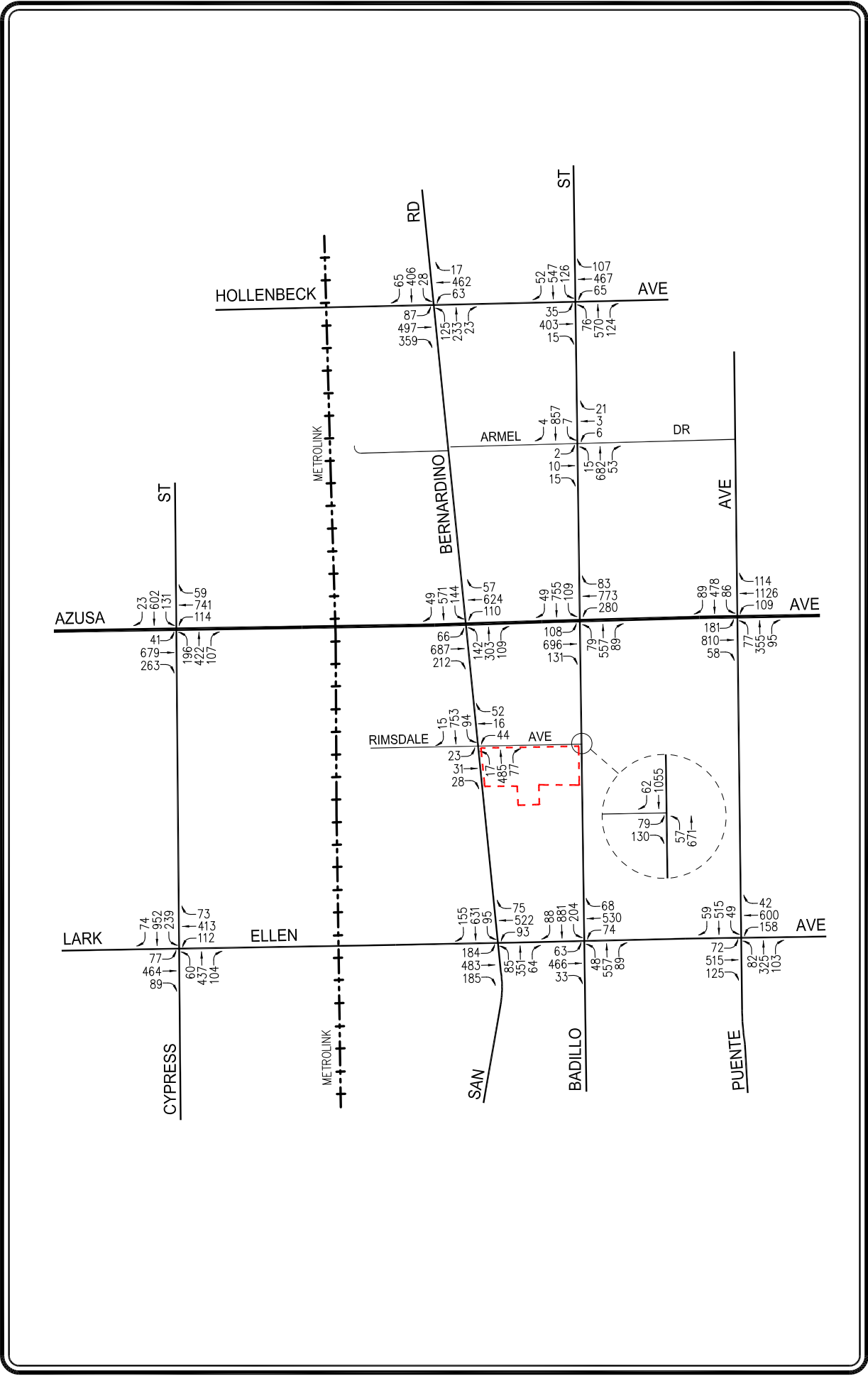
[c] According to the County of Los Angeles Department of Public Works' *Traffic Impact Analysis Report Guidelines*, January 1, 1997, page 6: an impact is considered

significant if the project-related increase in the volume-to-capacity ratio (v/c) equals or exceeds the thresholds shown below:

Level of Service
Pre-Project ICU
> 0.700 - 0.800
> 0.800 - 0.900
> 0.900
C
D
E/F

Project-Related Increase in V/C
equal to or greater than 0.040
equal to or greater than 0.020
equal to or greater than 0.010

[d] Unsignalized intersection. Two-way stop controlled.



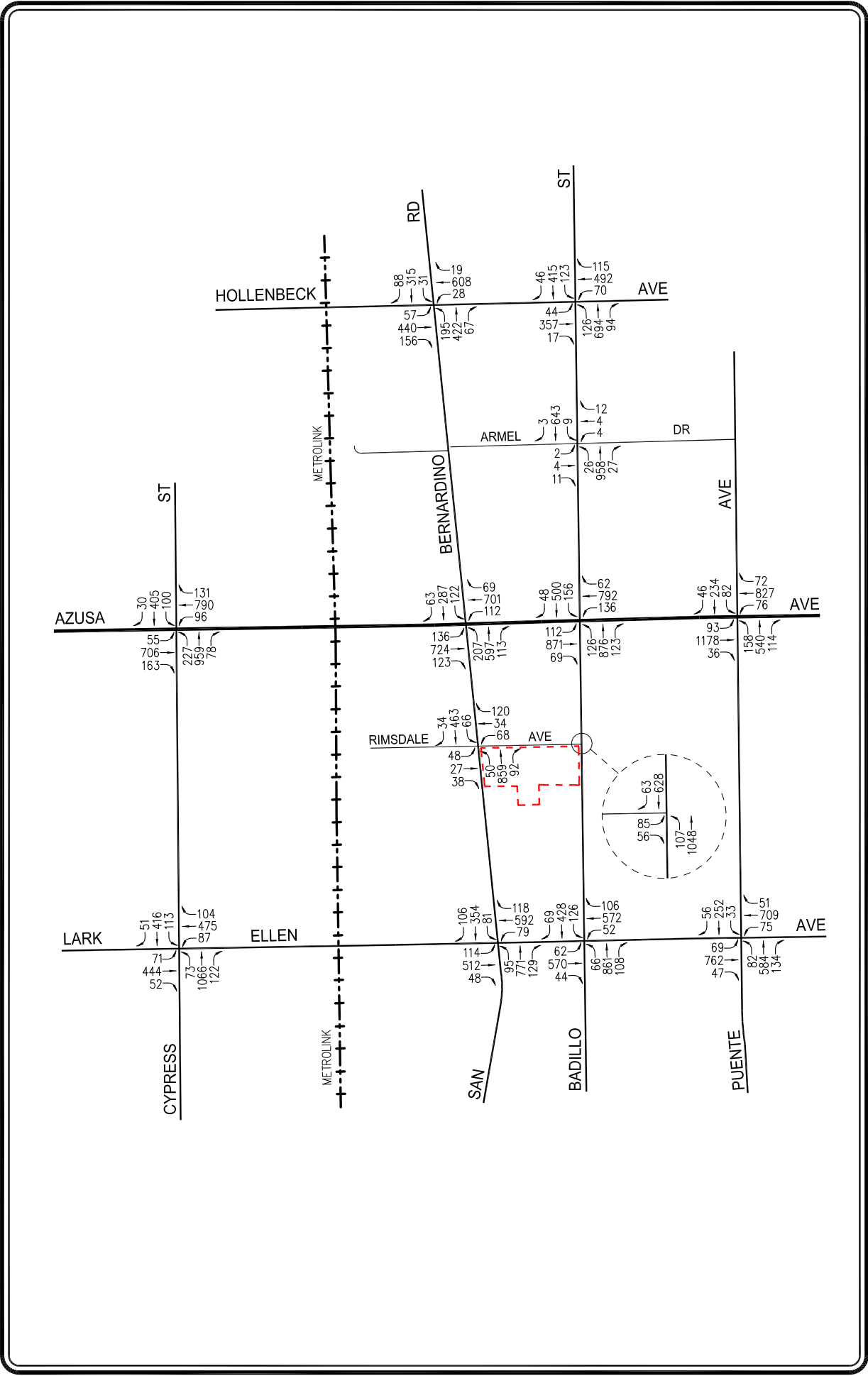


FIGURE 10-2
EXISTING WITH PROJECT TRAFFIC VOLUMES
PLANNING AREAS 1 AND 2
 WEEKDAY PM PEAK HOUR
 COVINA BOWL SPECIFIC PLAN PROJECT



NOT TO SCALE

SPECIFIC PLAN BOUNDARY

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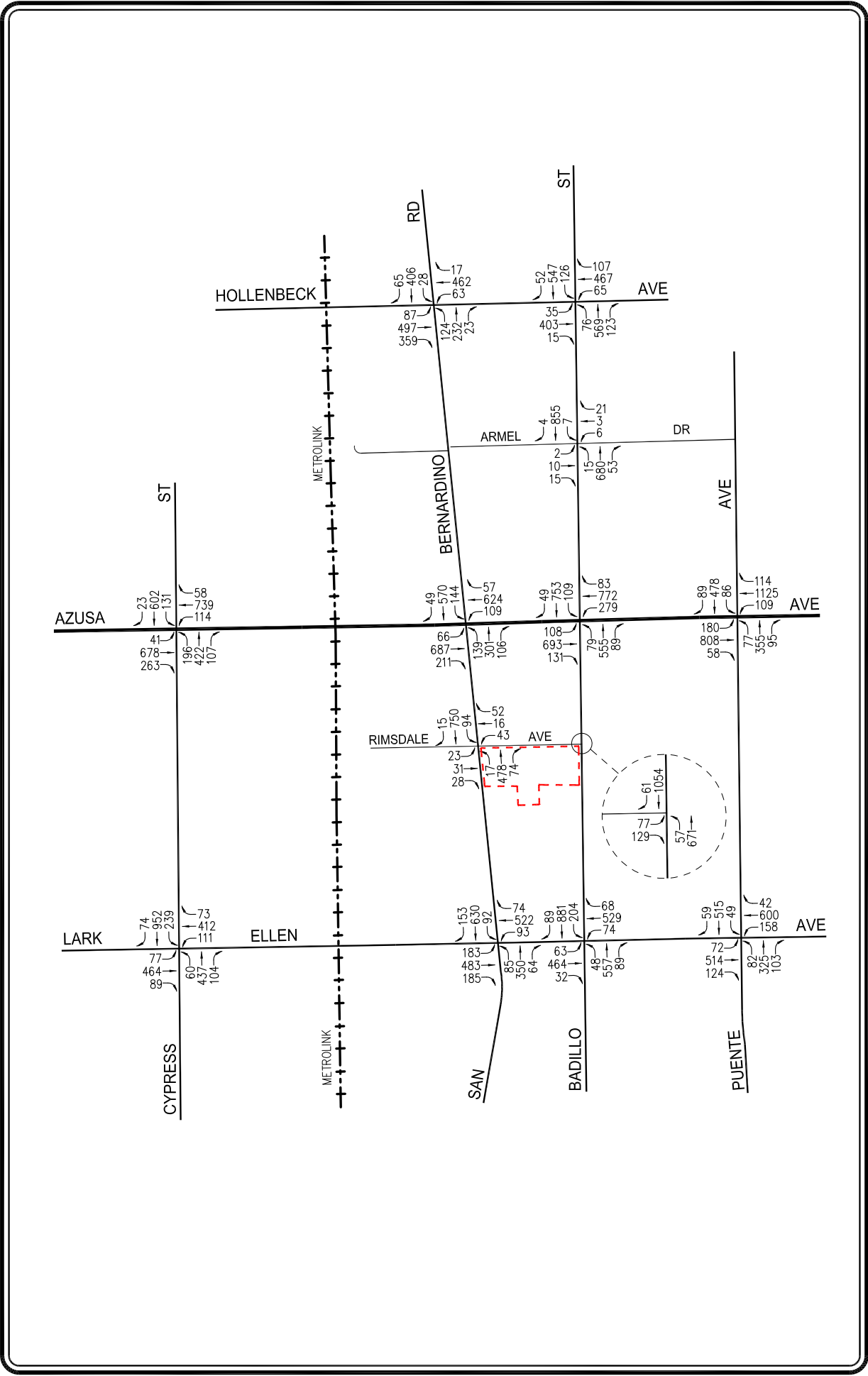


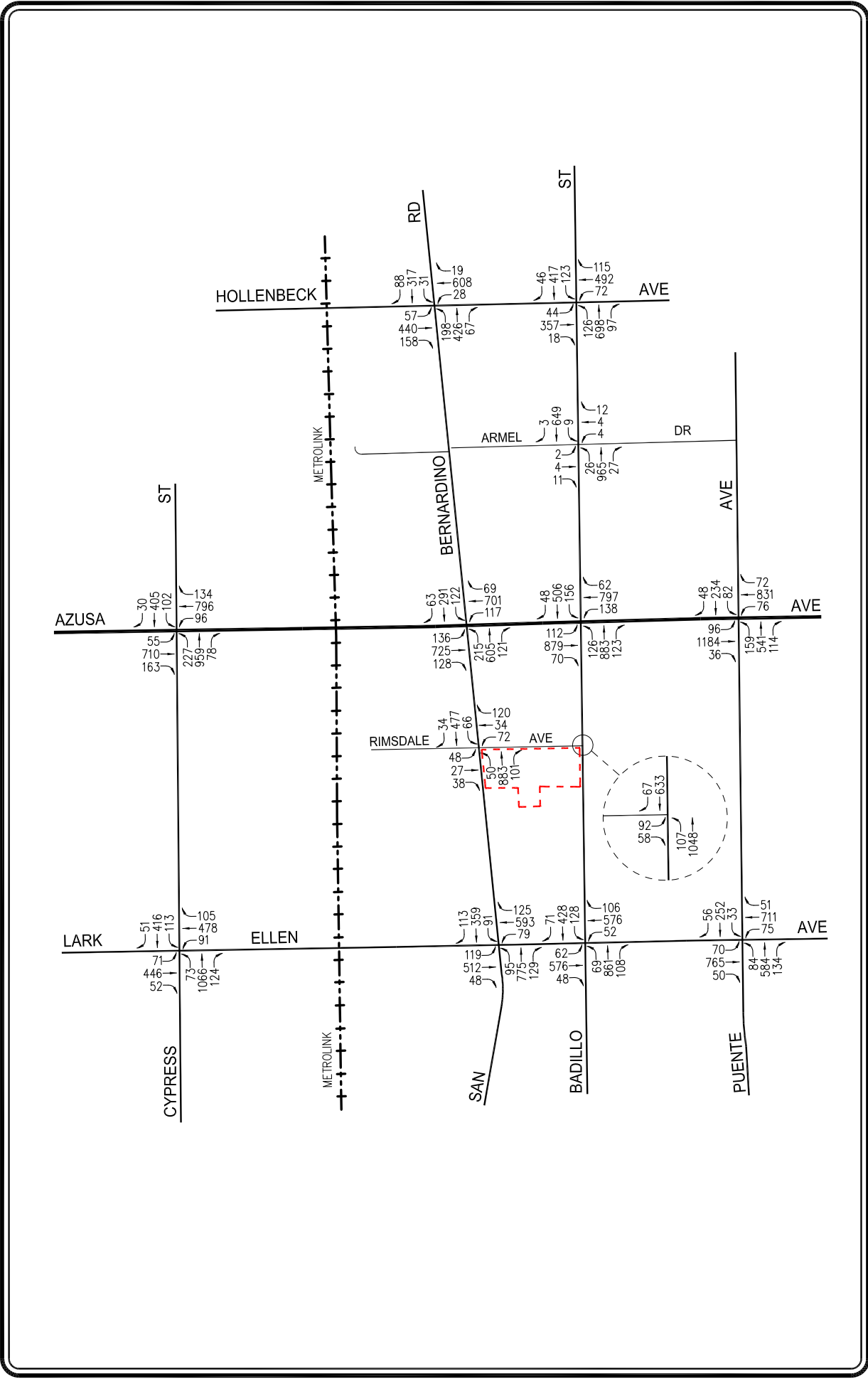
FIGURE 10-3
EXISTING WITH PROJECT TRAFFIC VOLUMES
PLANNING AREAS 1, 2, 3, 4
 WEEKDAY AM PEAK HOUR
 COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers



combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The *v/c* ratios and delays at the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 7-1*. As presented in column [3] of *Table 10-1*, ten of the 13 study intersections are expected to continue operating at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related projects traffic under the Future Without Project condition. Three of the study intersections (i.e., Intersection No. 10: Azusa Avenue/Puente Avenue, Intersection No. 11: Armel Drive/Badillo Street and Intersection No. 12: Hollenbeck Avenue/San Bernardino Road) are anticipated to operate at LOS E during the AM and/or PM peak hours for the Future Without Project condition. The future (2024) without project (existing, ambient growth, related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in **Figures 10-5 and 10-6**, respectively.

10.2.2 Future With Project (Planning Areas 1 and 2) Conditions

As shown in column [4] of *Table 10-1*, application of the City's threshold criteria to the "Year 2024 Future With Project" scenario indicates that the proposed near-term project with build-out of Planning Areas 1 and 2 is not expected to create significant impacts at any of the study intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the "Future With Proposed Project" condition. It should also be noted that the intersections analyzed based on other adjacent jurisdiction's significance criteria also did not result in significant impacts at those study intersections. The future (2024) with project (existing, ambient growth, related projects and near-term project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in **Figures 10-7 and 10-8**, respectively.

10.3 Future (2040) Specific Plan Build-out Conditions

10.3.1 Future Without Project Conditions

The future without project conditions were forecast based on the addition of traffic generated by the completion and occupancy of the related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The *v/c* ratios and delays at the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 7-1*. As presented in column [3] of *Table 10-2*, nine of the 13 study intersections are expected to continue operating at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related projects traffic under the Future Without Project condition. Four of the study intersections (i.e., Intersection No. 9: Azusa Avenue/Badillo Street, Intersection No. 10: Azusa Avenue/Puente Avenue, Intersection No. 11: Armel Drive/Badillo Street and Intersection No. 12: Hollenbeck Avenue/San Bernardino Road) are anticipated to operate at LOS E during the AM and/or PM peak hours for the Future Without Project condition. The future (2040) without project (existing, ambient growth, related

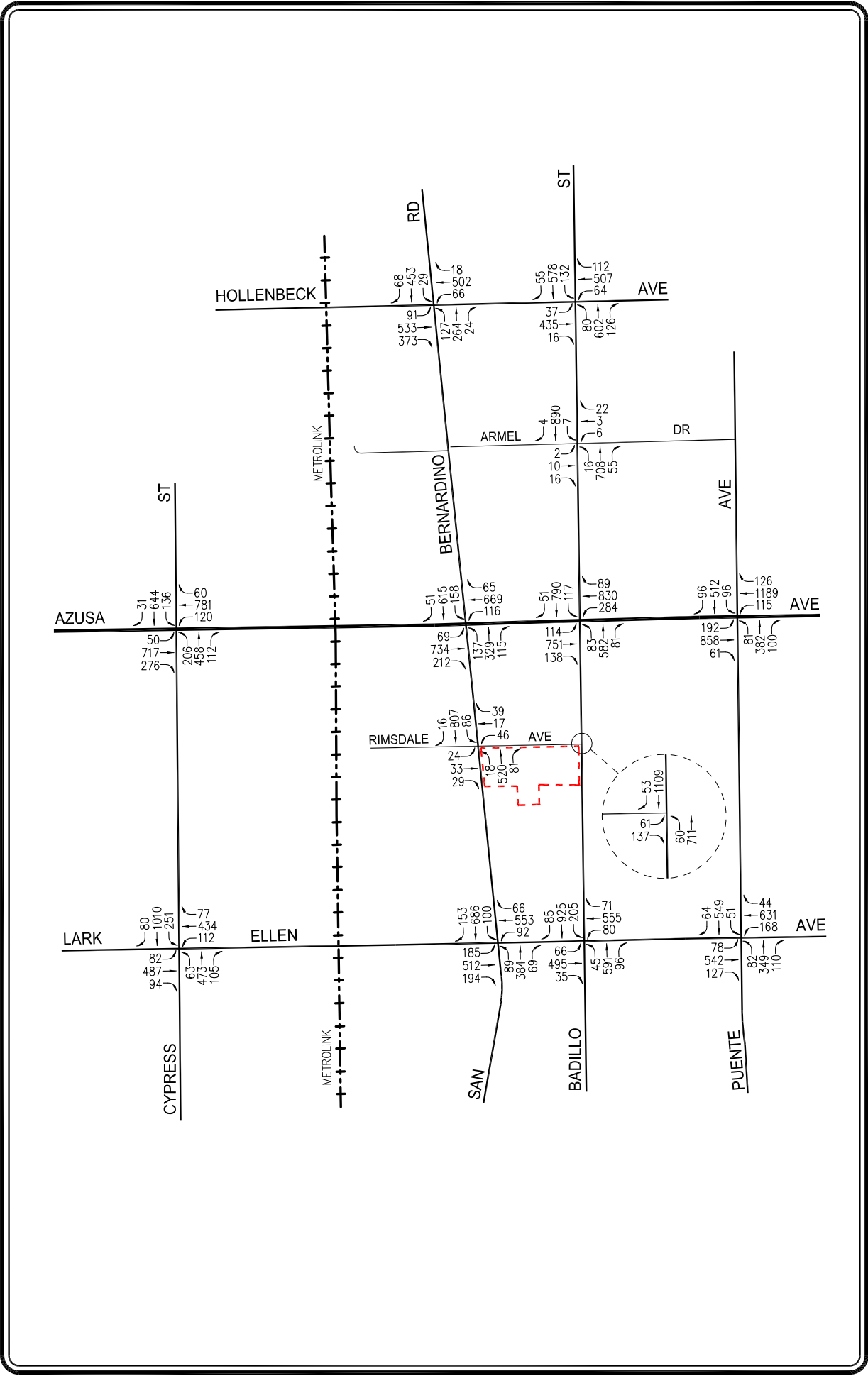


FIGURE 10-5
FUTURE (2024) WITHOUT PROJECT TRAFFIC VOLUMES
 WEEKDAY AM PEAK HOUR
 COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE



LINSCOTT, LAW & GREENSPAN, engineers

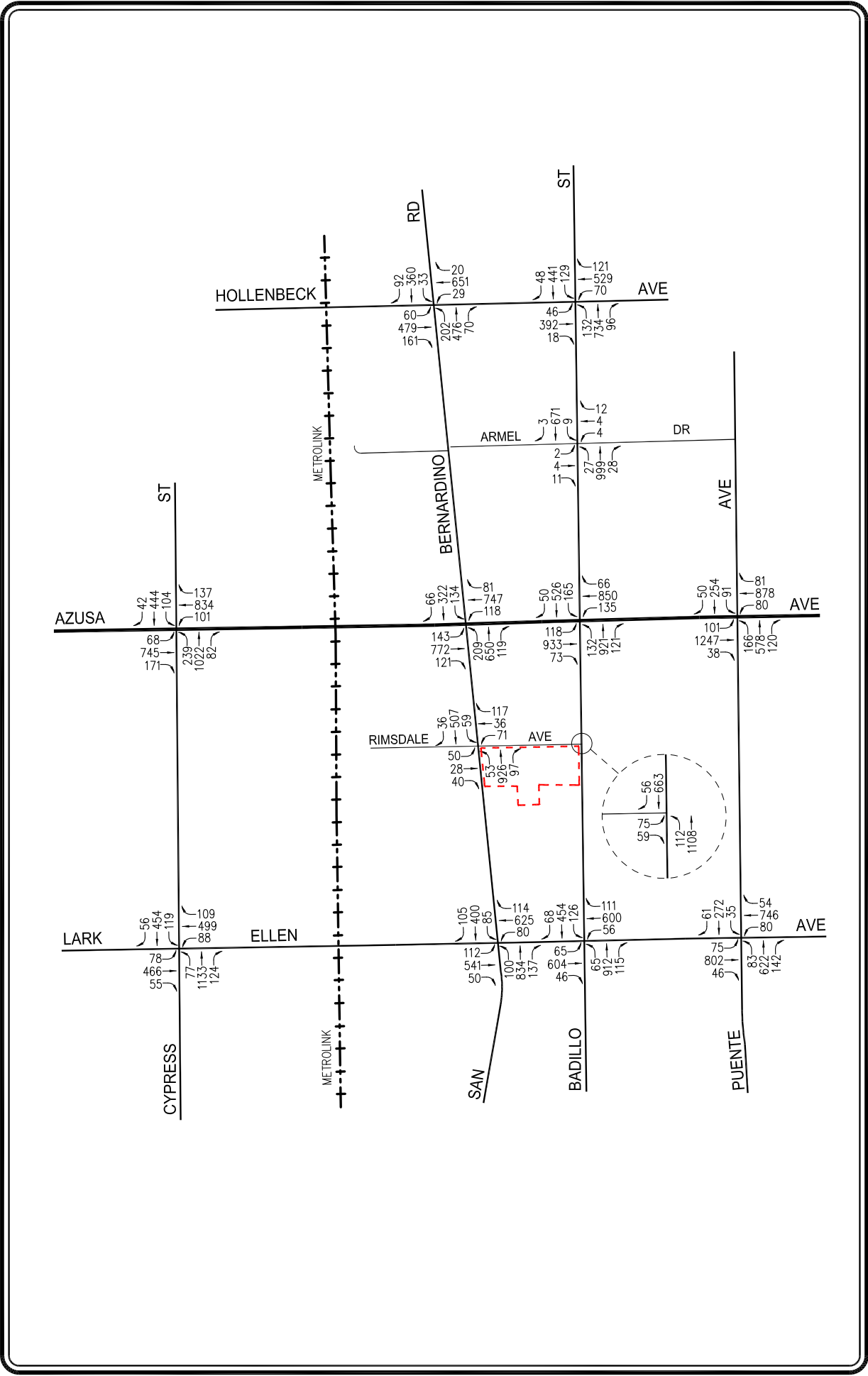


FIGURE 10-6
FUTURE (2024) WITHOUT PROJECT TRAFFIC VOLUMES
 WEEKDAY PM PEAK HOUR
 COVINA BOWL SPECIFIC PLAN PROJECT

SPECIFIC PLAN BOUNDARY



NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

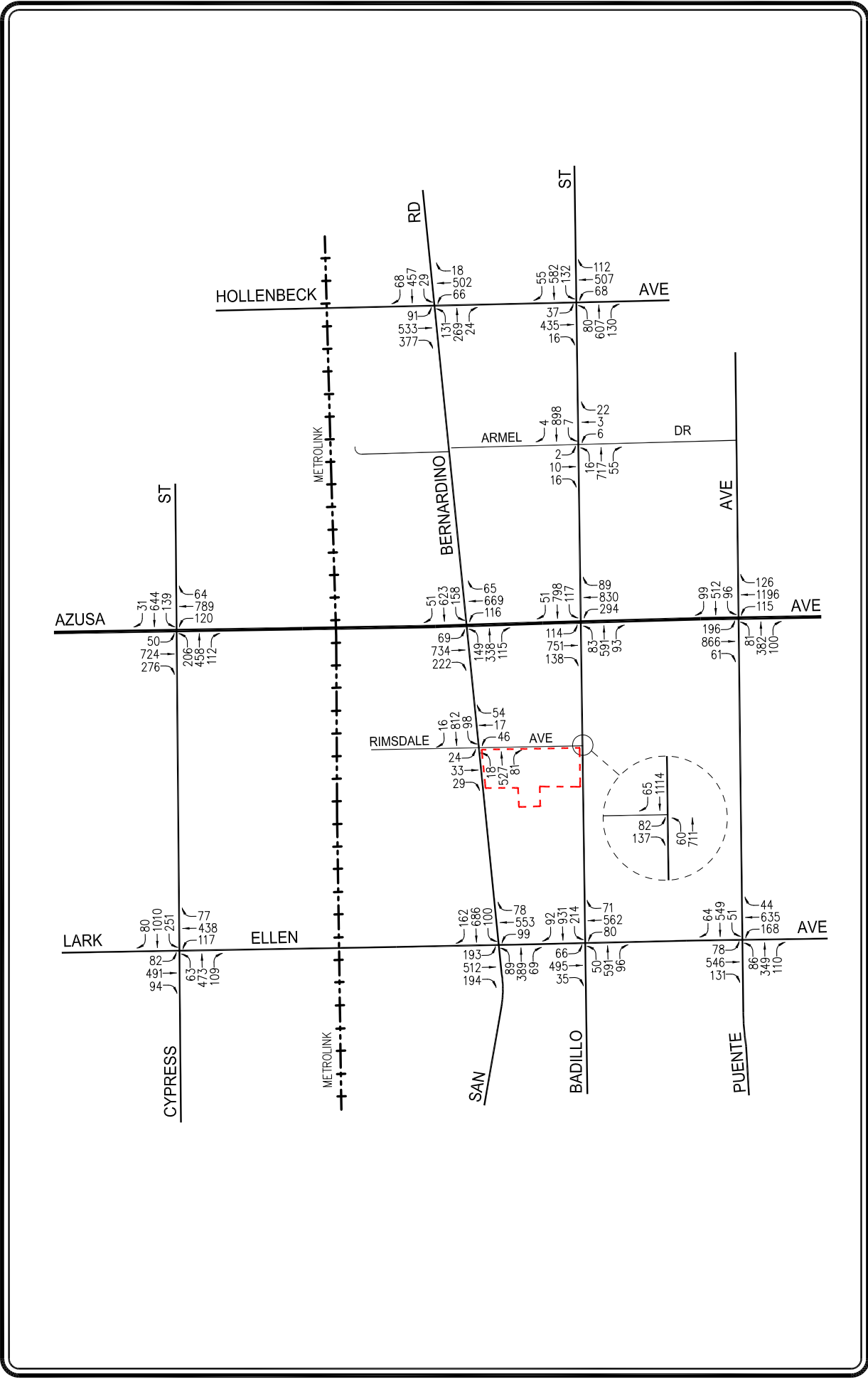


FIGURE 10-7
FUTURE (2024) WITH NEAR-TERM PROJECT TRAFFIC VOLUMES
 WEEKDAY AM PEAK HOUR
 COVINA BOWL SPECIFIC PLAN PROJECT

NOT TO SCALE

SPECIFIC PLAN BOUNDARY

LINSCOTT, LAW & GREENSPAN, engineers

projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in **Figures 10-9** and **10-10**, respectively.

10.3.2 Future With Project (Planning Areas 1, 2, 3, and 4) Conditions

As shown in column [4] of *Table 10-2*, application of the City's threshold criteria to the "Year 2040 Future With Project" scenario indicates that the proposed build-out of all four planning areas within the Specific Plan is expected to result in a significant impact at one of the study intersections during the weekday afternoon peak hour as shown below:

- Intersection No. 9: Azusa Avenue/Badillo Street
PM peak hour v/c increase of 0.015 [to 0.961 (LOS E) from 0.946 (LOS E)]

Incremental, but not significant, impacts are noted at the remaining study intersections. The future with project (existing, ambient growth, related projects and Specific Plan build-out project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in **Figures 10-11** and **10-12**, respectively.

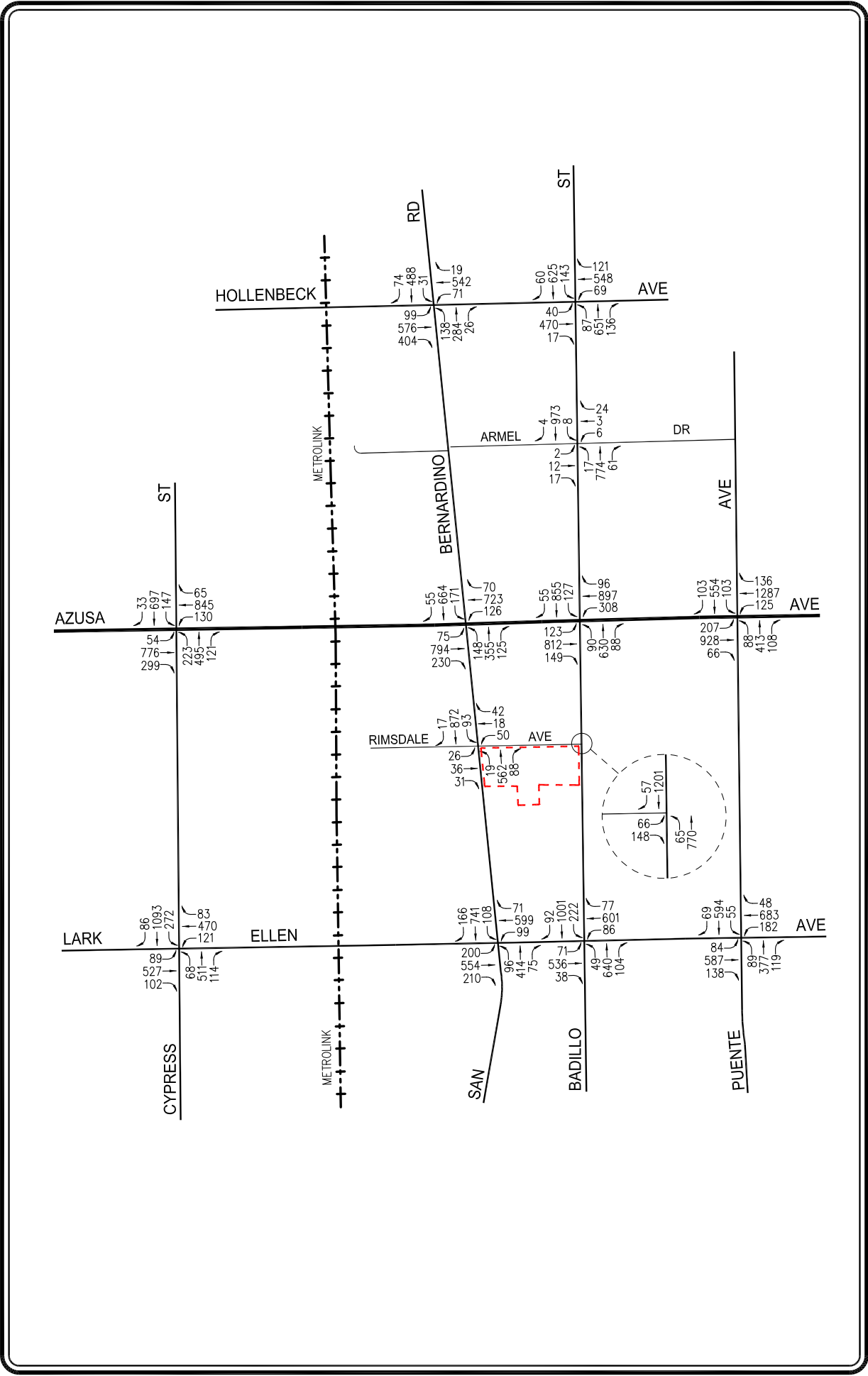


FIGURE 10-9
FUTURE (2040) WITHOUT PROJECT TRAFFIC VOLUMES
 WEEKDAY AM PEAK HOUR
 COVINA BOWL SPECIFIC PLAN PROJECT

 **NOT TO SCALE**
 SPECIFIC PLAN BOUNDARY
 LINSKOTT, LAW & GREENSPAN, engineers

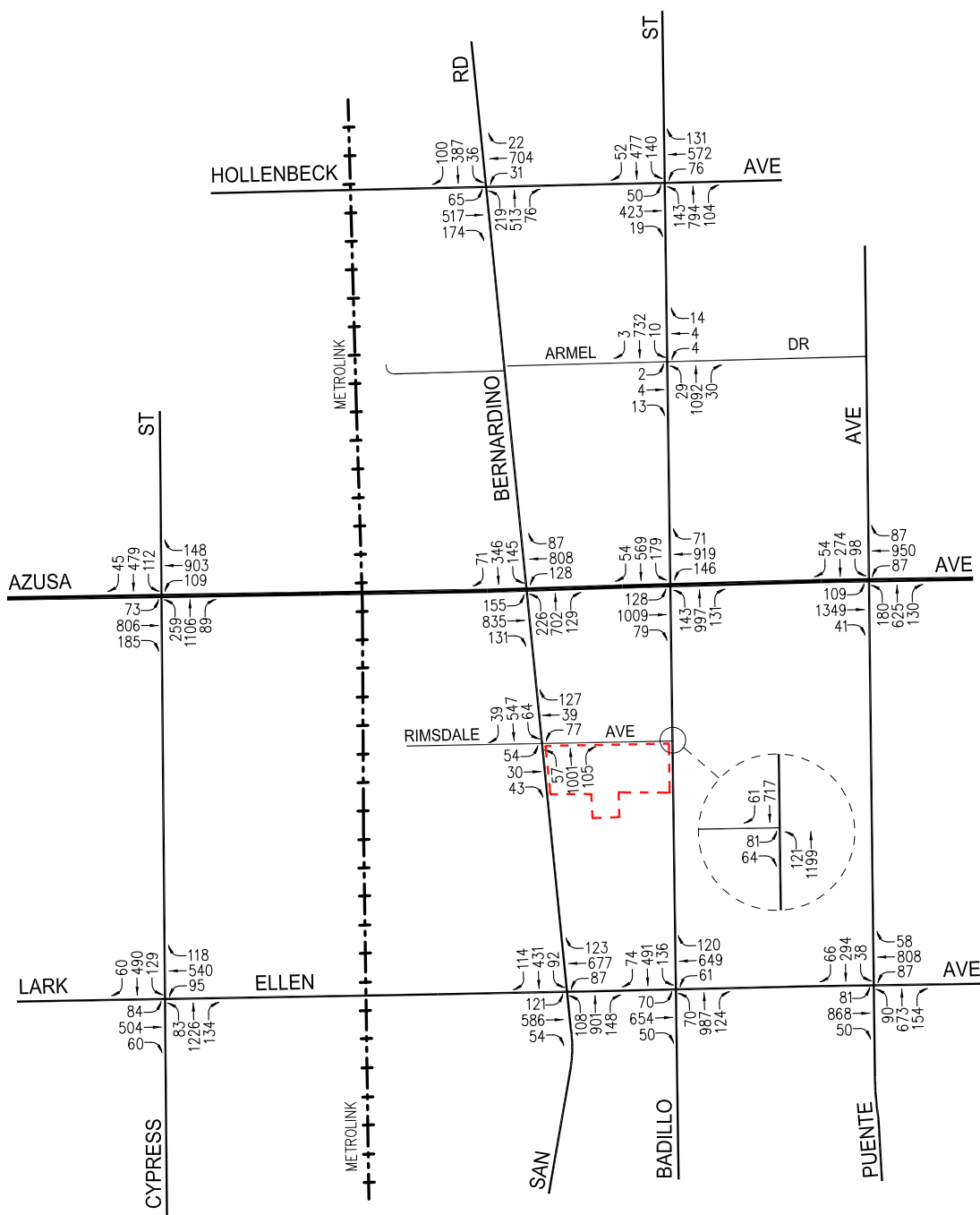


FIGURE 10-10
FUTURE (2040) WITHOUT PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT

 NOT TO SCALE

 SPECIFIC PLAN BOUNDARY

LINSCOTT, LAW & GREENSPAN, engineers

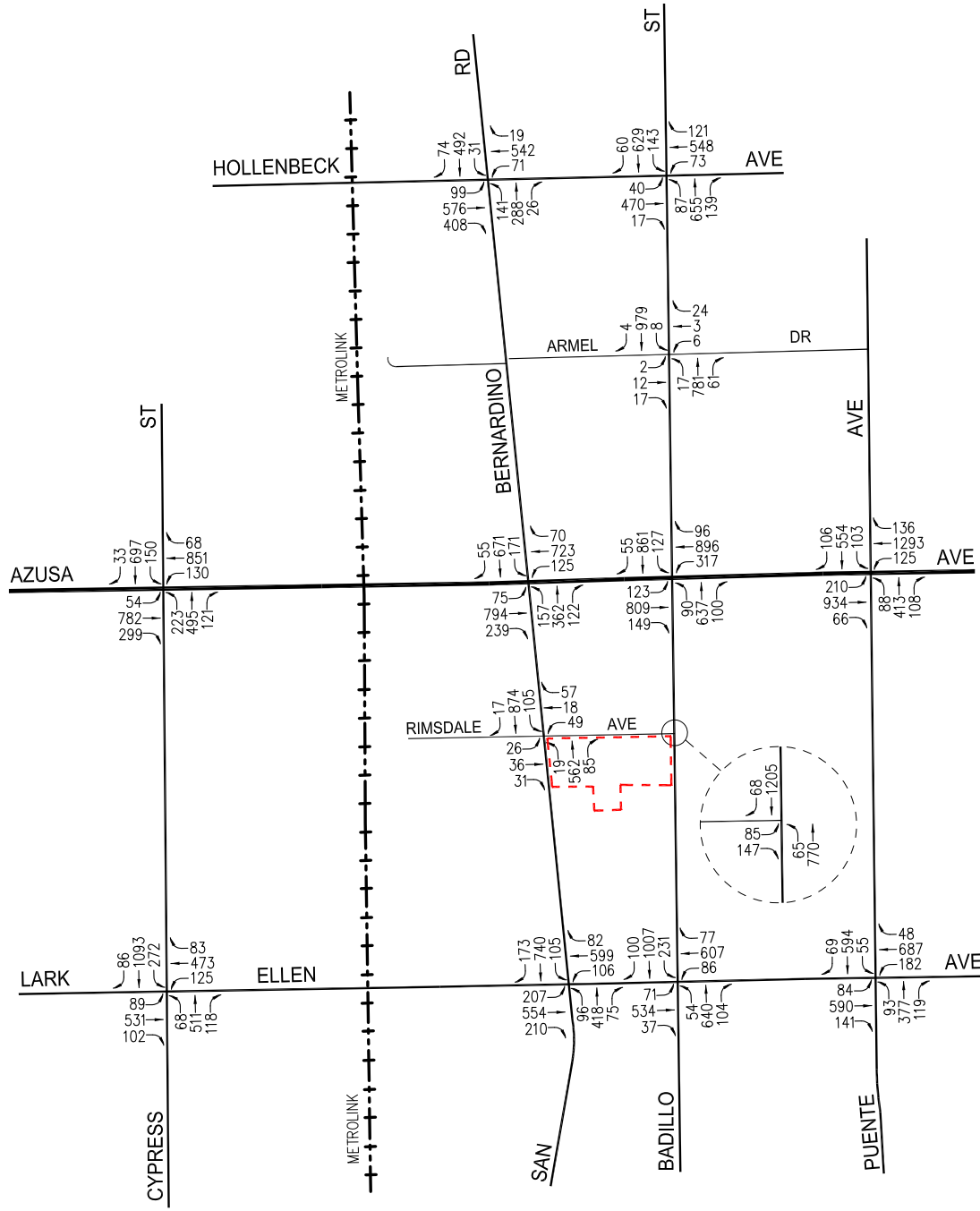


FIGURE 10-11
FUTURE (2040) WITH SPECIFIC PLAN BUILD-OUT
PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT



SPECIFIC PLAN BOUNDARY



NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

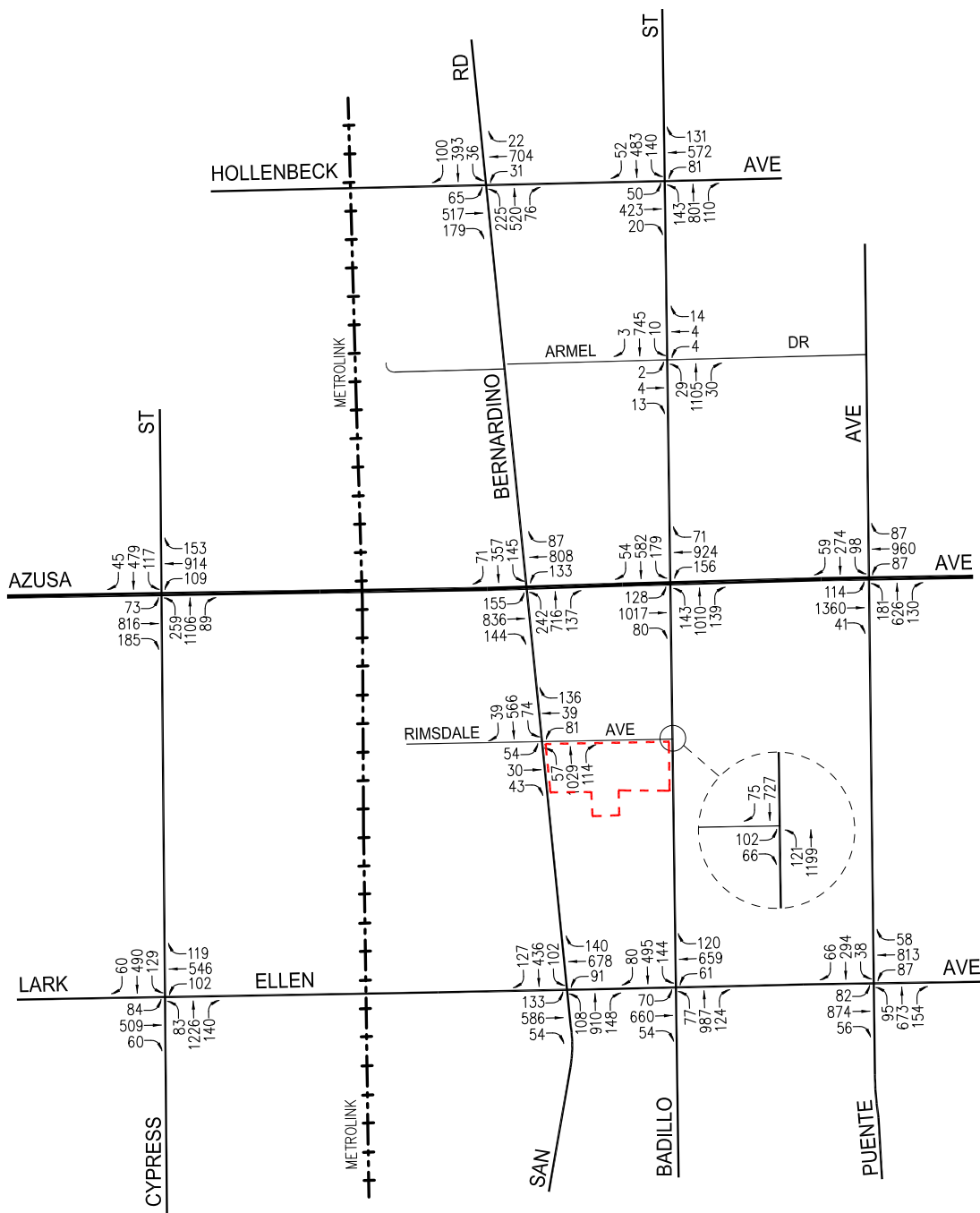


FIGURE 10-12
FUTURE (2040) WITH SPECIFIC PLAN BUILD-OUT
PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
COVINA BOWL SPECIFIC PLAN PROJECT



NOT TO SCALE



SPECIFIC PLAN BOUNDARY

LINSCOTT, LAW & GREENSPAN, engineers

11.0 TRANSPORTATION IMPROVEMENT MEASURES

11.1 Summary of Specific Plan Build-out Impacts

Based on the traffic analyses summarized in Section 10, it was determined that the build-out of all four planning areas within the Covina Bowl Specific Plan is expected to result in a significant traffic impact at the following study intersection, based on the City of Covina's threshold criteria:

- Intersection No. 9: Azusa Avenue/Badillo Street (Future Year 2040 with Specific Plan Build-out Impacts)

11.2 Transportation Mitigation Measures

Transportation mitigation measures typically consist of travel demand management programs and physical improvements such as traffic signal installations/modifications, and/or roadway intersection restriping measures. The following paragraph summarizes the recommended transportation mitigation measures, which if implemented are expected to reduce the significant impact (i.e., due to the build-out of the Specific Plan) to less than significant levels.

- Intersection No. 9: Azusa Avenue/Badillo Street

Based on the City's General Plan Circulation Element, improvements have been identified for Azusa Avenue which include installation of a third through lane with removal of on-street parking, narrowing of the median island, and removal of dedicated right-turn lanes. Thus, the recommended project mitigation for this intersection consists of modifying the north and south legs of the intersection to include an additional through lane. To accommodate the additional through lane, the existing roadway striping would need to be adjusted along both the north and south legs of the intersection for transitioning purposes. Although this measure may be accommodated within the existing pavement widths, it may also require the elimination of up to five (5) existing curbside parking spaces along the west side of Azusa Avenue and seven (7) existing curbside parking spaces along the east side of Azusa Avenue, south of the intersection. The resultant northbound and southbound approach lane configurations would consist of one left-turn lane, two through lanes, and one shared through/right-turn lane. As shown in *Table 10-2*, this mitigation measure is anticipated to reduce the forecast project impact during the weekday PM peak hour to a less than significant level for the future (2040) with project condition.

As shown in columns [2] and [3] of *Table 11-1*, the significant impact would not be triggered under build-out of only Planning Areas 1 and 2, nor build-out of Planning Areas 3 and 4 alone. As shown in *Table 11-1*, Planning Areas 1 and 2 are attributable to 60 percent (60%) of the significant impact (i.e., v/c change of 0.009 from Planning Areas 1 and 2 / v/c change of 0.015 from Planning Areas 1, 2, 3 and 4 = 0.60 for Planning Areas 1 and 2) and Planning Areas 3 and 4 contribute to the remaining 40 percent (40%) (i.e., v/c change of 0.006 from Planning Areas 3 and 4 / v/c change of 0.015 from Planning Areas

Table 11-1
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
FUTURE (2040) WITH PROJECT (PLANNING AREAS 1 & 2) AND
FUTURE (2040) WITH PROJECT (PLANNING AREAS 3 & 4)
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	PEAK HOUR	[1]		[2]		[3]		[4]										
			FUTURE PRE-PROJECT		FUTURE W/ PROJECT (PA 1 & 2 ONLY)		CHANGE V/C [(2)-(1)]		SIGNIF. IMPACT		FUTURE W/ PROJECT (PA 3 & 4 ONLY)		CHANGE V/C [(3)-(1)]		SIGNIF. IMPACT		FUTURE W/ PROJECT (PA 1, 2, 3 & 4)		CHANGE V/C [(4)-(1)]
9	Azusa Avenue / Badillo Street [a,b]	AM	0.883	D	0.892	D	0.009	No	0.881	D	-0.002	No	0.890	D	0.007	No			
		PM	0.946	E	0.955	E	0.009	No	0.952	E	0.006	No	0.961	E	0.015	Yes			

[a] City of Covina intersection impact threshold criteria is as follows:

Signalized intersections:	
Level of Service	Pre-Project V/C
C	> 0.700 - 0.800
D	> 0.800 - 0.900
E/F	> 0.900

[b] City of West Covina intersection impact threshold criteria is as follows:

Level of Service	Final V/C
D/E/F	> 0.800

1, 2, 3 and 4 = 0.40 for Planning Areas 3 and 4). The method used for this calculation is based on the weekday PM peak hour since the PM peak hour is the only time period forecast to be significantly impacted.

12.0 SUMMARY AND CONCLUSIONS

- ***Project Description*** – The Covina Bowl Specific Plan area totals approximately 7.5 acres and consists of four separate planning areas within the City of Covina. The proposed near-term project within Planning Areas 1 and 2 consists of the construction of up to 132 residential townhome units and restoration of the original 1955 Covina Bowl building for re-occupancy of approximately 12,000 square feet of commercial use (i.e., an 11,050 square-foot office and a 950 square-foot coffee shop space). The build-out and occupancy year of the near-term project is anticipated to be year 2024. While no specific development/site design is proposed at this time within Planning Areas 3 and 4 of the Specific Plan, the maximum potential build-out within these planning areas is included as part of the Specific Plan build-out condition (year 2040).
- ***Vehicular Site Access*** – Vehicular access to Planning Areas 1 and 2 is planned to be provided via a total of five (5) driveways: one (1) driveway on San Bernardino Road, three (3) driveways on Rimsdale Avenue, and one (1) driveway on Badillo Street. Vehicular access to Planning Areas 3 and 4 is planned to be provided via one (1) driveway on Badillo Street and one (1) driveway on San Bernardino Road, respectively.
- ***Project Parking*** – A total of 346 parking spaces is planned to be provided for Planning Areas 1 and 2, with 309 spaces provided on-site and 37 spaces provided on-street along the west side of Rimsdale Avenue. The surface parking lot (i.e., 33 spaces) adjacent to the building at the southwest corner of Rimsdale Avenue and San Bernardino Road and the angled street parking (i.e., 37 spaces) proposed along the west side of Rimsdale Avenue are planned to be utilized by the office/coffee shop employees, patrons, and residential guests. The residential parking is planned to be provided within a combination of private residential garages and guest spaces interspersed throughout the lot, both totaling 276 parking spaces.
- ***Study Scope*** – Thirteen (13) study intersections were selected for detailed peak hour level of service analyses under existing and future conditions (i.e., year 2024 for near-term analysis and year 2040 for Specific Plan build-out), without and with the proposed project traffic. The analysis focused on assessing potential traffic impacts assuming the near-term project associated with build-out of Planning Areas 1 and 2 and full build-out of the Specific Plan associated with Planning Areas 1, 2, 3, and 4 during the AM and PM peak hours for typical weekday conditions.
- ***Related Projects*** – The City of Covina Community Development Department, the City of West Covina Planning Department, and the County of Los Angeles Department of Regional Planning were consulted to obtain the list of development projects (related projects) in the area. A total of 13 related projects was identified and considered as part of the cumulative traffic analysis.
- ***Project Trip Generation*** – The proposed near-term project within Planning Areas 1 and 2 is expected to generate 133 new vehicle trips (60 inbound trips and 73 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the proposed project is

expected to generate 97 new vehicle trips (50 inbound trips and 47 outbound trips). Over a 24-hour period, the proposed project is forecast to generate approximately 1,081 new daily trip ends during a typical weekday. Planning Area 3 is expected to result in a net decrease of one vehicle trip (2 fewer inbound trips and one outbound trip) during the weekday AM peak hour and 11 net new vehicle trips (7 inbound trips and 4 outbound trips) during the weekday PM peak hour. Over a 24-hour period, Planning Area 3 is forecast to generate approximately 118 net new daily trip ends during a typical weekday. Planning Area 4 is expected to result in a net decrease of 22 vehicle trips (6 fewer inbound trips and 16 fewer outbound trips) during the weekday AM peak hour and 83 net new vehicle trips (31 inbound trips and 52 outbound trips) during the PM peak hour. Over a 24-hour period, Planning Area 4 is forecast to generate approximately 716 new daily trip ends during a typical weekday.

- ***Transportation Impact Analysis*** – It is concluded that the proposed near-term project development within Planning Areas 1 and 2 is not anticipated to result in a significant traffic impact at any of the study intersections for existing and future conditions. Incremental, but not significant impacts, are noted at the study intersections evaluated in this analysis. As no significant impacts are identified due to the proposed project, no traffic mitigation measures are required or recommended. Full build-out of the Covina Bowl Specific Plan (within Planning Areas 1, 2, 3, and 4) is anticipated to result in a significant traffic impact at one of the 13 study intersections for future with project condition based on application of the impact threshold criteria for the City of Covina. Mitigation measures proposed at this location are consistent with the City's General Plan Circulation Element and are expected to reduce this impact to a less than significant level.

APPENDIX A

SHARED PARKING ANALYSIS WORKSHEETS

Appendix Table A-1

RESIDENTIAL
WEEKDAY SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (One-Bedroom)						
Size	14 DU						Shared Parking Demand
Peak Pkg Rate[2]	1.05 /DU						
Weekday Pkg Rate[3]	1.00 /DU						
Gross Spaces	14 Spaces						
Adjusted Gross Spaces[4]	14 Spaces						
	1 Guest Spc.		13 Reserved		0 Resid. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	100%	13	95%	0	13
7:00 AM	10%	0	100%	13	80%	0	13
8:00 AM	20%	0	100%	13	67%	0	13
9:00 AM	20%	0	100%	13	55%	0	13
10:00 AM	20%	0	100%	13	50%	0	13
11:00 AM	20%	0	100%	13	45%	0	13
12:00 PM	20%	0	100%	13	40%	0	13
1:00 PM	20%	0	100%	13	40%	0	13
2:00 PM	20%	0	100%	13	40%	0	13
3:00 PM	20%	0	100%	13	40%	0	13
4:00 PM	20%	0	100%	13	45%	0	13
5:00 PM	40%	0	100%	13	50%	0	13
6:00 PM	60%	1	100%	13	60%	0	14
7:00 PM	100%	1	100%	13	70%	0	14
8:00 PM	100%	1	100%	13	80%	0	14
9:00 PM	100%	1	100%	13	85%	0	14
10:00 PM	100%	1	100%	13	95%	0	14
11:00 PM	80%	1	100%	13	97%	0	14
12:00 AM	50%	1	100%	13	100%	0	14

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI base parking ratios for the residential (one-bedroom unit) land use type.

[3] The weekday and weekend parking rates are based on the ULI base parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Appendix Table A-1

RESIDENTIAL
WEEKEND SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (One-Bedroom)						
Size	14 DU						Shared Parking Demand
Peak Pkg Rate[2]	1.05 /DU						
Weekend Pkg Rate[3]	1.05 /DU						
Gross Spaces	15 Spaces						
Adjusted Gross Spaces[4]	15 Spaces						
	2 Guest Spc.		13 Reserved		0 Resid. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	100%	13	100%	0	13
7:00 AM	20%	0	100%	13	90%	0	13
8:00 AM	20%	0	100%	13	85%	0	13
9:00 AM	20%	0	100%	13	80%	0	13
10:00 AM	20%	0	100%	13	75%	0	13
11:00 AM	20%	0	100%	13	70%	0	13
12:00 PM	20%	0	100%	13	65%	0	13
1:00 PM	20%	0	100%	13	70%	0	13
2:00 PM	20%	0	100%	13	70%	0	13
3:00 PM	20%	0	100%	13	70%	0	13
4:00 PM	20%	0	100%	13	75%	0	13
5:00 PM	40%	1	100%	13	85%	0	14
6:00 PM	60%	1	100%	13	90%	0	14
7:00 PM	100%	2	100%	13	97%	0	15
8:00 PM	100%	2	100%	13	98%	0	15
9:00 PM	100%	2	100%	13	99%	0	15
10:00 PM	100%	2	100%	13	100%	0	15
11:00 PM	80%	2	100%	13	100%	0	15
12:00 AM	50%	1	100%	13	100%	0	14

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI base parking ratios for the residential (one-bedroom unit) land use type.

[3] The weekday and weekend parking rates are based on the ULI base parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Appendix Table A-2

RESIDENTIAL
WEEKDAY SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (Two-Bedroom)						
Size	24 DU						Shared Parking Demand
Peak Pkg Rate[2]	1.80 /DU						
Weekday Pkg Rate[3]	1.75 /DU						
Gross Spaces	42 Spaces						
Adjusted Gross Spaces[4]	42 Spaces						
	2 Guest Spc.		40 Reserved		0 Resid. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	100%	40	95%	0	40
7:00 AM	10%	0	100%	40	80%	0	40
8:00 AM	20%	0	100%	40	67%	0	40
9:00 AM	20%	0	100%	40	55%	0	40
10:00 AM	20%	0	100%	40	50%	0	40
11:00 AM	20%	0	100%	40	45%	0	40
12:00 PM	20%	0	100%	40	40%	0	40
1:00 PM	20%	0	100%	40	40%	0	40
2:00 PM	20%	0	100%	40	40%	0	40
3:00 PM	20%	0	100%	40	40%	0	40
4:00 PM	20%	0	100%	40	45%	0	40
5:00 PM	40%	1	100%	40	50%	0	41
6:00 PM	60%	1	100%	40	60%	0	41
7:00 PM	100%	2	100%	40	70%	0	42
8:00 PM	100%	2	100%	40	80%	0	42
9:00 PM	100%	2	100%	40	85%	0	42
10:00 PM	100%	2	100%	40	95%	0	42
11:00 PM	80%	2	100%	40	97%	0	42
12:00 AM	50%	1	100%	40	100%	0	41

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI base parking ratios for the residential (two-bedroom unit) land use type.

[3] The weekday and weekend parking rates are based on the ULI base parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Appendix Table A-2

RESIDENTIAL
WEEKEND SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (Two-Bedroom)						
Size	24 DU						Shared Parking Demand
Peak Pkg Rate[2]	1.80 /DU						
Weekend Pkg Rate[3]	1.80 /DU						
Gross Spaces	43 Spaces						
Adjusted Gross Spaces[4]	43 Spaces						
	4 Guest Spc.		39 Reserved		0 Resid. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	100%	39	100%	0	39
7:00 AM	20%	1	100%	39	90%	0	40
8:00 AM	20%	1	100%	39	85%	0	40
9:00 AM	20%	1	100%	39	80%	0	40
10:00 AM	20%	1	100%	39	75%	0	40
11:00 AM	20%	1	100%	39	70%	0	40
12:00 PM	20%	1	100%	39	65%	0	40
1:00 PM	20%	1	100%	39	70%	0	40
2:00 PM	20%	1	100%	39	70%	0	40
3:00 PM	20%	1	100%	39	70%	0	40
4:00 PM	20%	1	100%	39	75%	0	40
5:00 PM	40%	2	100%	39	85%	0	41
6:00 PM	60%	2	100%	39	90%	0	41
7:00 PM	100%	4	100%	39	97%	0	43
8:00 PM	100%	4	100%	39	98%	0	43
9:00 PM	100%	4	100%	39	99%	0	43
10:00 PM	100%	4	100%	39	100%	0	43
11:00 PM	80%	3	100%	39	100%	0	42
12:00 AM	50%	2	100%	39	100%	0	41

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI base parking ratios for the residential (two-bedroom unit) land use type.

[3] The weekday and weekend parking rates are based on the ULI base parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Appendix Table A-3

RESIDENTIAL
WEEKDAY SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (Three-Bedroom/Four-Bedroom)						
Size	94 DU						Shared Parking Demand
Peak Pkg Rate[2]	2.65 /DU						
Weekday Pkg Rate[3]	2.60						
Gross Spaces	244 Spaces						
Adjusted Gross Spaces[4]	244 Spaces						
	9 Guest Spc.		235 Reserved		0 Resid. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	100%	235	95%	0	235
7:00 AM	10%	1	100%	235	80%	0	236
8:00 AM	20%	2	100%	235	67%	0	237
9:00 AM	20%	2	100%	235	55%	0	237
10:00 AM	20%	2	100%	235	50%	0	237
11:00 AM	20%	2	100%	235	45%	0	237
12:00 PM	20%	2	100%	235	40%	0	237
1:00 PM	20%	2	100%	235	40%	0	237
2:00 PM	20%	2	100%	235	40%	0	237
3:00 PM	20%	2	100%	235	40%	0	237
4:00 PM	20%	2	100%	235	45%	0	237
5:00 PM	40%	4	100%	235	50%	0	239
6:00 PM	60%	5	100%	235	60%	0	240
7:00 PM	100%	9	100%	235	70%	0	244
8:00 PM	100%	9	100%	235	80%	0	244
9:00 PM	100%	9	100%	235	85%	0	244
10:00 PM	100%	9	100%	235	95%	0	244
11:00 PM	80%	7	100%	235	97%	0	242
12:00 AM	50%	5	100%	235	100%	0	240

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI base parking ratios for the residential (three-bedroom unit) land use type.

[3] The weekday and weekend parking rates are based on the ULI base parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Appendix Table A-3

RESIDENTIAL
WEEKEND SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Residential (Three-Bedroom/Four-Bedroom)						
Size	94 DU						Shared Parking Demand
Peak Pkg Rate[2]	2.65 /DU						
Weekend Pkg Rate[3]	2.65						
Gross Spaces	249 Spaces						
Adjusted Gross Spaces[4]	249 Spaces						
	14 Guest Spc.		235 Reserved		0 Resid. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	100%	235	100%	0	235
7:00 AM	20%	3	100%	235	90%	0	238
8:00 AM	20%	3	100%	235	85%	0	238
9:00 AM	20%	3	100%	235	80%	0	238
10:00 AM	20%	3	100%	235	75%	0	238
11:00 AM	20%	3	100%	235	70%	0	238
12:00 PM	20%	3	100%	235	65%	0	238
1:00 PM	20%	3	100%	235	70%	0	238
2:00 PM	20%	3	100%	235	70%	0	238
3:00 PM	20%	3	100%	235	70%	0	238
4:00 PM	20%	3	100%	235	75%	0	238
5:00 PM	40%	6	100%	235	85%	0	241
6:00 PM	60%	8	100%	235	90%	0	243
7:00 PM	100%	14	100%	235	97%	0	249
8:00 PM	100%	14	100%	235	98%	0	249
9:00 PM	100%	14	100%	235	99%	0	249
10:00 PM	100%	14	100%	235	100%	0	249
11:00 PM	80%	11	100%	235	100%	0	246
12:00 AM	50%	7	100%	235	100%	0	242

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the ULI base parking ratios for the residential (three-bedroom unit) land use type.

[3] The weekday and weekend parking rates are based on the ULI base parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Appendix Table A-4

OFFICE
WEEKDAY SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Office				
Size	11.1 KSF				Shared Parking Demand
Peak Pkg Rate[2]	4.0 /KSF				
Weekday Pkg Rate[3]	4.0 /KSF				
Gross Spaces	44 Spaces				
Adjusted Gross Spaces[4]	1.00 44 Spaces				
	3 Visitor Spc.		41 Emp. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	3%	1	1
7:00 AM	1%	0	15%	6	6
8:00 AM	20%	1	50%	21	22
9:00 AM	60%	2	90%	37	39
10:00 AM	100%	3	100%	41	44
11:00 AM	45%	1	100%	41	42
12:00 PM	15%	0	85%	35	35
1:00 PM	45%	1	85%	35	36
2:00 PM	95%	3	95%	39	42
3:00 PM	45%	1	95%	39	40
4:00 PM	15%	0	85%	35	35
5:00 PM	10%	0	60%	25	25
6:00 PM	5%	0	25%	10	10
7:00 PM	2%	0	15%	6	6
8:00 PM	1%	0	5%	2	2
9:00 PM	0%	0	3%	1	1
10:00 PM	0%	0	1%	0	0
11:00 PM	0%	0	0%	0	0
12:00 AM	0%	0	0%	0	0

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the City of Covina Municipal Code off-street parking

[3] The weekday and weekend parking rates are based on the Code parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Appendix Table A-4

OFFICE
WEEKEND SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Office				
Size	11.1 KSF				Shared Parking Demand
Peak Pkg Rate[2]	4.0 /KSF				
Weekend Pkg Rate[3]	0.40 /KSF				
Gross Spaces	4 Spaces				
Adjusted Gross Spaces[4]	1.00 4 Spaces				
	0 Visitor Spc.		4 Emp. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	0%	0	0%	0	0
7:00 AM	20%	0	20%	1	1
8:00 AM	60%	0	60%	2	2
9:00 AM	80%	0	80%	3	3
10:00 AM	90%	0	90%	4	4
11:00 AM	100%	0	100%	4	4
12:00 PM	90%	0	90%	4	4
1:00 PM	80%	0	80%	3	3
2:00 PM	60%	0	60%	2	2
3:00 PM	40%	0	40%	2	2
4:00 PM	20%	0	20%	1	1
5:00 PM	10%	0	10%	0	0
6:00 PM	5%	0	5%	0	0
7:00 PM	0%	0	0%	0	0
8:00 PM	0%	0	0%	0	0
9:00 PM	0%	0	0%	0	0
10:00 PM	0%	0	0%	0	0
11:00 PM	0%	0	0%	0	0
12:00 AM	0%	0	0%	0	0

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the City of Covina Municipal Code off-street parking

[3] The weekday and weekend parking rates are based on the Code parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Attachment Table A-5

COFFEE SHOP
WEEKDAY SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Coffee Shop				Shared Parking Demand
Size	1.0 KSF				
Peak Pkg Rate[2]	5.0 /KSF				
Weekday Pkg Rate[3]	4.9 /KSF				
Gross Spaces	5 Spaces				
Adjusted Gross Spaces[4]	1.00 5 Spaces				
	4 Guest Spc.		1 Emp. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	5%	0	20%	0	
7:00 AM	10%	0	50%	1	
8:00 AM	20%	1	100%	1	
9:00 AM	30%	1	100%	1	
10:00 AM	55%	2	100%	1	
11:00 AM	85%	3	100%	1	
12:00 PM	100%	4	100%	1	
1:00 PM	100%	4	100%	1	
2:00 PM	90%	4	95%	1	
3:00 PM	60%	2	70%	1	
4:00 PM	55%	2	60%	1	
5:00 PM	60%	2	70%	1	
6:00 PM	85%	3	90%	1	
7:00 PM	80%	3	90%	1	
8:00 PM	50%	2	60%	1	
9:00 PM	30%	1	40%	0	
10:00 PM	20%	1	30%	0	
11:00 PM	10%	0	20%	0	
12:00 AM	5%	0	20%	0	

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the City of Covina Municipal Code off-street parking requirements.

[3] The weekday and weekend parking rates are based on the Code parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

Attachment Table A-5

COFFEE SHOP
WEEKEND SHARED PARKING DEMAND ANALYSIS [1]

Land Use	Coffee Shop				
Size	1.0 KSF				Shared Parking Demand
Peak Pkg Rate[2]	5.0 /KSF				
Weekend Pkg Rate[3]	5.0 /KSF				
Gross Spaces	5 Spaces				
Adjusted Gross Spaces[4]	1.00 5 Spaces				
	4 Guest Spc.		1 Emp. Spc.		
Time of Day	% Of Peak	# Of Spaces	% Of Peak	# Of Spaces	
6:00 AM	5%	0	20%	0	0
7:00 AM	10%	0	50%	1	1
8:00 AM	20%	1	100%	1	2
9:00 AM	30%	1	100%	1	2
10:00 AM	55%	2	100%	1	3
11:00 AM	85%	3	100%	1	4
12:00 PM	100%	4	100%	1	5
1:00 PM	100%	4	100%	1	5
2:00 PM	90%	4	95%	1	5
3:00 PM	60%	2	70%	1	3
4:00 PM	55%	2	60%	1	3
5:00 PM	60%	2	70%	1	3
6:00 PM	85%	3	90%	1	4
7:00 PM	80%	3	90%	1	4
8:00 PM	50%	2	60%	1	3
9:00 PM	30%	1	40%	0	1
10:00 PM	20%	1	30%	0	1
11:00 PM	10%	0	20%	0	0
12:00 AM	5%	0	20%	0	0

Notes:

[1] Source: "Shared Parking", Third Edition, Urban Land Institute, ICSC, and National Parking Association, 2020.

[2] Peak parking rates based on the City of Covina Municipal Code off-street parking requirements.

[3] The weekday and weekend parking rates are based on the Code parking ratios and the weekday vs. weekend parking variations as summarized in Figure 2-2 of the "Shared Parking" manual.

[4] Gross spaces not adjusted to reflect parking demand reduction due to captive market, internal capture, transit, and/or walk-in reduction.

APPENDIX B

TRAFFIC COUNT DATA AM AND PM PEAK PERIODS

CITY TRAFFIC COUNTERS
WWW.CTCOUNTERS.COM

File Name : LarkEllen_Cypress
 Site Code : 00000000
 Start Date : 9/19/2019
 Page No : 1

Groups Printed- Vehicles

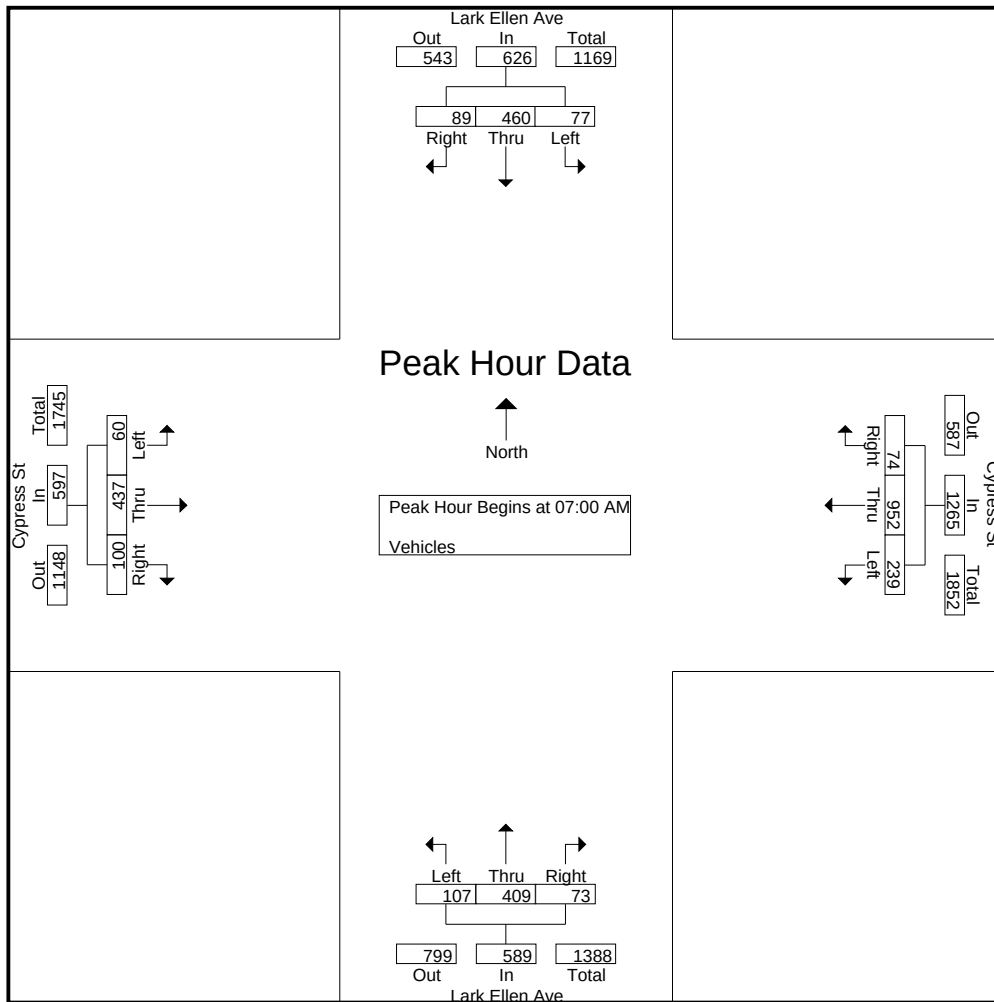
	Lark Ellen Ave Southbound			Cypress St Westbound			Lark Ellen Ave Northbound			Cypress St Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	14	87	15	30	300	17	22	78	7	12	66	16	664
07:15 AM	17	107	18	48	258	9	30	73	11	9	82	28	690
07:30 AM	32	146	27	75	228	22	27	128	23	19	162	36	925
07:45 AM	14	120	29	86	166	26	28	130	32	20	127	20	798
Total	77	460	89	239	952	74	107	409	73	60	437	100	3077
08:00 AM	19	76	20	23	128	23	35	108	18	21	78	14	563
08:15 AM	14	91	11	25	138	12	21	101	25	12	66	11	527
08:30 AM	11	73	13	11	130	11	17	93	10	7	82	13	471
08:45 AM	4	70	7	10	99	6	17	97	15	7	87	19	438
Total	48	310	51	69	495	52	90	399	68	47	313	57	1999
04:00 PM	11	100	10	25	68	19	20	95	41	22	257	34	702
04:15 PM	20	109	10	29	92	12	20	136	25	14	275	27	769
04:30 PM	20	97	9	34	109	17	20	86	33	23	272	31	751
04:45 PM	16	132	21	23	100	9	20	115	25	15	271	27	774
Total	67	438	50	111	369	57	80	432	124	74	1075	119	2996
05:00 PM	15	103	12	27	115	13	24	135	21	21	248	33	767
05:15 PM	18	129	9	19	86	13	19	139	28	21	245	27	753
05:30 PM	18	102	6	25	99	20	18	115	37	15	266	33	754
05:45 PM	24	131	7	32	77	19	23	116	19	37	223	34	742
Total	75	465	34	103	377	65	84	505	105	94	982	127	3016
Grand Total	267	1673	224	522	2193	248	361	1745	370	275	2807	403	11088
Apprch %	12.3	77.3	10.4	17.6	74	8.4	14.6	70.5	14.9	7.9	80.5	11.6	
Total %	2.4	15.1	2	4.7	19.8	2.2	3.3	15.7	3.3	2.5	25.3	3.6	

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : LarkEllen_Cypress
 Site Code : 00000000
 Start Date : 9/19/2019
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	Lark Ellen Ave Southbound				Cypress St Westbound				Lark Ellen Ave Northbound				Cypress St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	14	87	15	116	30	300	17	347	22	78	7	107	12	66	16	94	664
07:15 AM	17	107	18	142	48	258	9	315	30	73	11	114	9	82	28	119	690
07:30 AM	32	146	27	205	75	228	22	325	27	128	23	178	19	162	36	217	925
07:45 AM	14	120	29	163	86	166	26	278	28	130	32	190	20	127	20	167	798
Total Volume	77	460	89	626	239	952	74	1265	107	409	73	589	60	437	100	597	3077
% App. Total	12.3	73.5	14.2		18.9	75.3	5.8		18.2	69.4	12.4		10.1	73.2	16.8		
PHF	.602	.788	.767	.763	.695	.793	.712	.911	.892	.787	.570	.775	.750	.674	.694	.688	.832

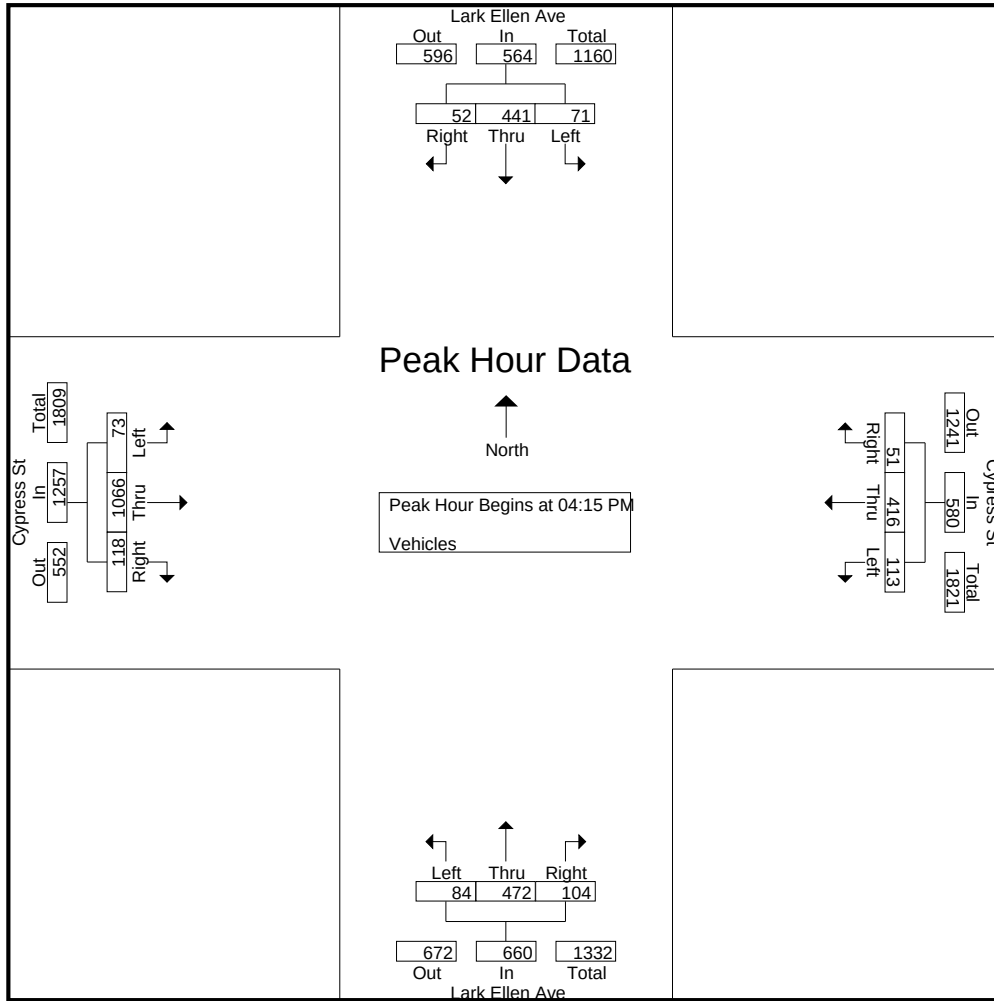


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : LarkEllen_Cypress
 Site Code : 00000000
 Start Date : 9/19/2019
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	Lark Ellen Ave Southbound				Cypress St Westbound				Lark Ellen Ave Northbound				Cypress St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	20	109	10	139	29	92	12	133	20	136	25	181	14	275	27	316	769
04:30 PM	20	97	9	126	34	109	17	160	20	86	33	139	23	272	31	326	751
04:45 PM	16	132	21	169	23	100	9	132	20	115	25	160	15	271	27	313	774
05:00 PM	15	103	12	130	27	115	13	155	24	135	21	180	21	248	33	302	767
Total Volume	71	441	52	564	113	416	51	580	84	472	104	660	73	1066	118	1257	3061
% App. Total	12.6	78.2	9.2		19.5	71.7	8.8		12.7	71.5	15.8		5.8	84.8	9.4		
PHF	.888	.835	.619	.834	.831	.904	.750	.906	.875	.868	.788	.912	.793	.969	.894	.964	.989



CITY TRAFFIC COUNTERS
WWW.CTCOUNTERS.COM

File Name : LarkEllen_Cypress_BP
 Site Code : 00000000
 Start Date : 9/19/2019
 Page No : 1

Groups Printed- Bikes & Peds

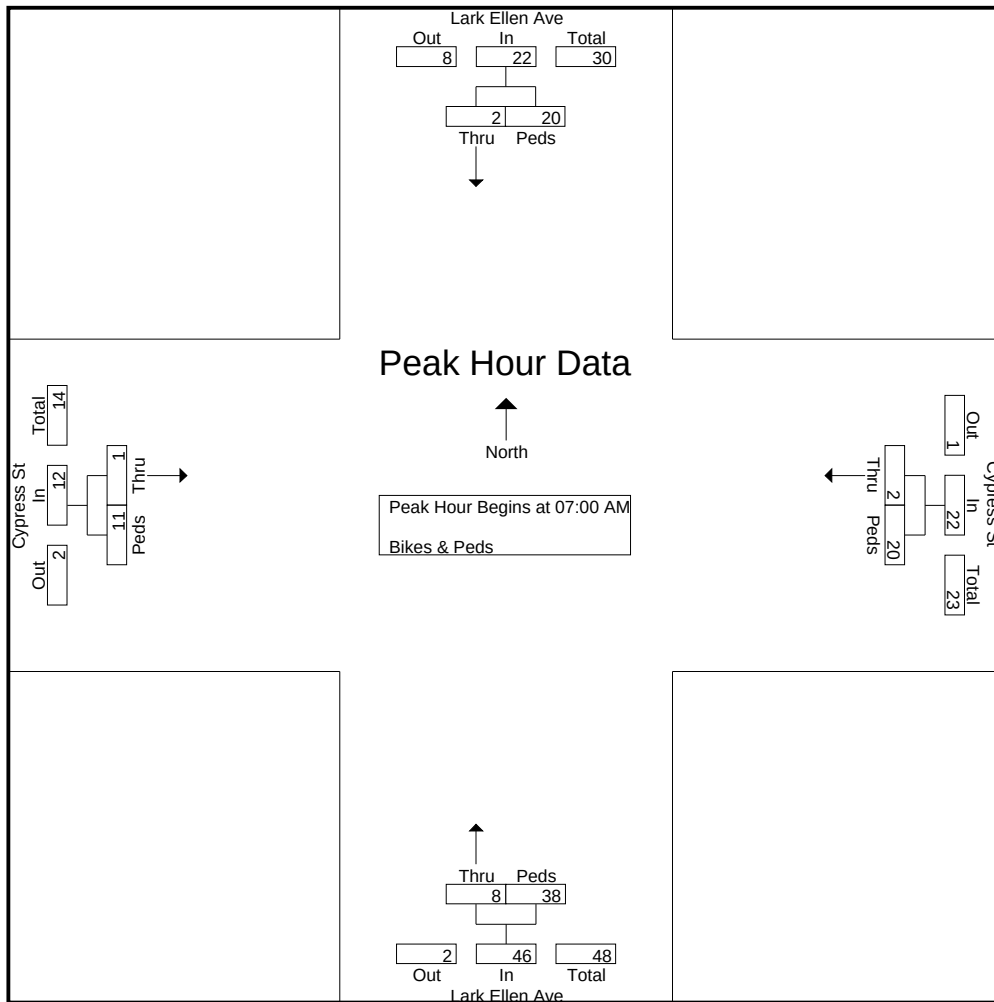
	Lark Ellen Ave Southbound		Cypress St Westbound		Lark Ellen Ave Northbound		Cypress St Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	1	0	1	0	1	3	1	1	8
07:15 AM	1	6	0	12	4	22	0	4	49
07:30 AM	0	8	1	5	3	8	0	5	30
07:45 AM	0	6	0	3	0	5	0	1	15
Total	2	20	2	20	8	38	1	11	102
08:00 AM	0	1	0	2	0	0	0	1	4
08:15 AM	0	0	0	1	0	3	1	0	5
08:30 AM	1	2	0	1	0	0	0	0	4
08:45 AM	0	3	1	2	0	1	0	1	8
Total	1	6	1	6	0	4	1	2	21
04:00 PM	0	0	1	1	0	3	1	1	7
04:15 PM	0	0	0	5	0	2	0	0	7
04:30 PM	0	1	1	0	0	1	0	0	3
04:45 PM	0	0	0	0	1	1	0	2	4
Total	0	1	2	6	1	7	1	3	21
05:00 PM	1	2	1	2	1	3	1	0	11
05:15 PM	0	1	0	3	0	0	0	1	5
05:30 PM	0	2	1	1	2	3	0	3	12
05:45 PM	2	0	0	2	3	3	1	4	15
Total	3	5	2	8	6	9	2	8	43
Grand Total	6	32	7	40	15	58	5	24	187
Apprch %	15.8	84.2	14.9	85.1	20.5	79.5	17.2	82.8	
Total %	3.2	17.1	3.7	21.4	8	31	2.7	12.8	

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : LarkEllen_Cypress_BP
 Site Code : 00000000
 Start Date : 9/19/2019
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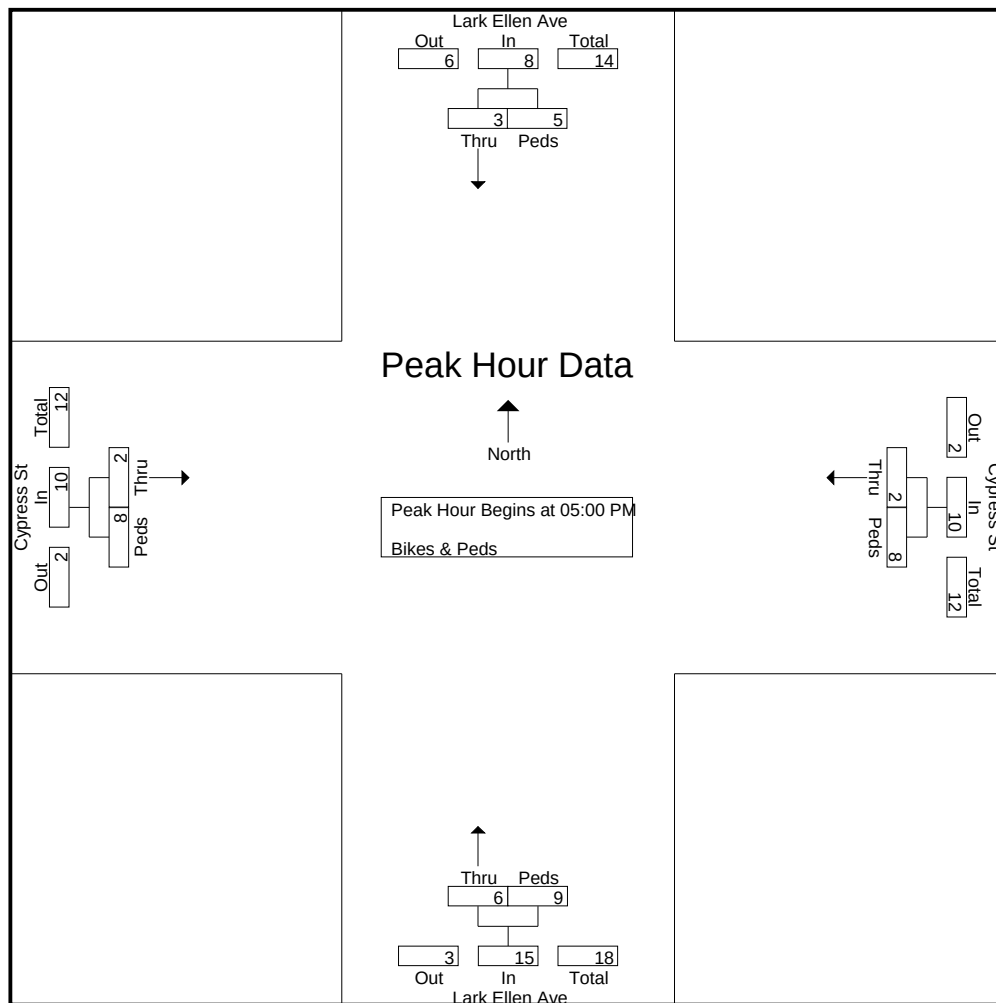
	Lark Ellen Ave Southbound			Cypress St Westbound			Lark Ellen Ave Northbound			Cypress St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	1	0	1	1	0	1	1	3	4	1	1	2	8
07:15 AM	1	6	7	0	12	12	4	22	26	0	4	4	49
07:30 AM	0	8	8	1	5	6	3	8	11	0	5	5	30
07:45 AM	0	6	6	0	3	3	0	5	5	0	1	1	15
Total Volume	2	20	22	2	20	22	8	38	46	1	11	12	102
% App. Total	9.1	90.9		9.1	90.9		17.4	82.6		8.3	91.7		
PHF	.500	.625	.688	.500	.417	.458	.500	.432	.442	.250	.550	.600	.520



CITY TRAFFIC COUNTERS
WWW.CTCOUNTERS.COM

File Name : LarkEllen_Cypress_BP
 Site Code : 00000000
 Start Date : 9/19/2019
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	Lark Ellen Ave Southbound			Cypress St Westbound			Lark Ellen Ave Northbound			Cypress St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	1	2	3	1	2	3	1	3	4	1	0	1	11
05:15 PM	0	1	1	0	3	3	0	0	0	0	1	1	5
05:30 PM	0	2	2	1	1	2	2	3	5	0	3	3	12
05:45 PM	2	0	2	0	2	2	3	3	6	1	4	5	15
Total Volume	3	5	8	2	8	10	6	9	15	2	8	10	43
% App. Total	37.5	62.5		20	80		40	60		20	80		
PHF	.375	.625	.667	.500	.667	.833	.500	.750	.625	.500	.500	.500	.717



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : LarkEllen_SanBernardino

Site Code : 00000000

Start Date : 9/18/2019

Page No : 1

Groups Printed- Vehicles

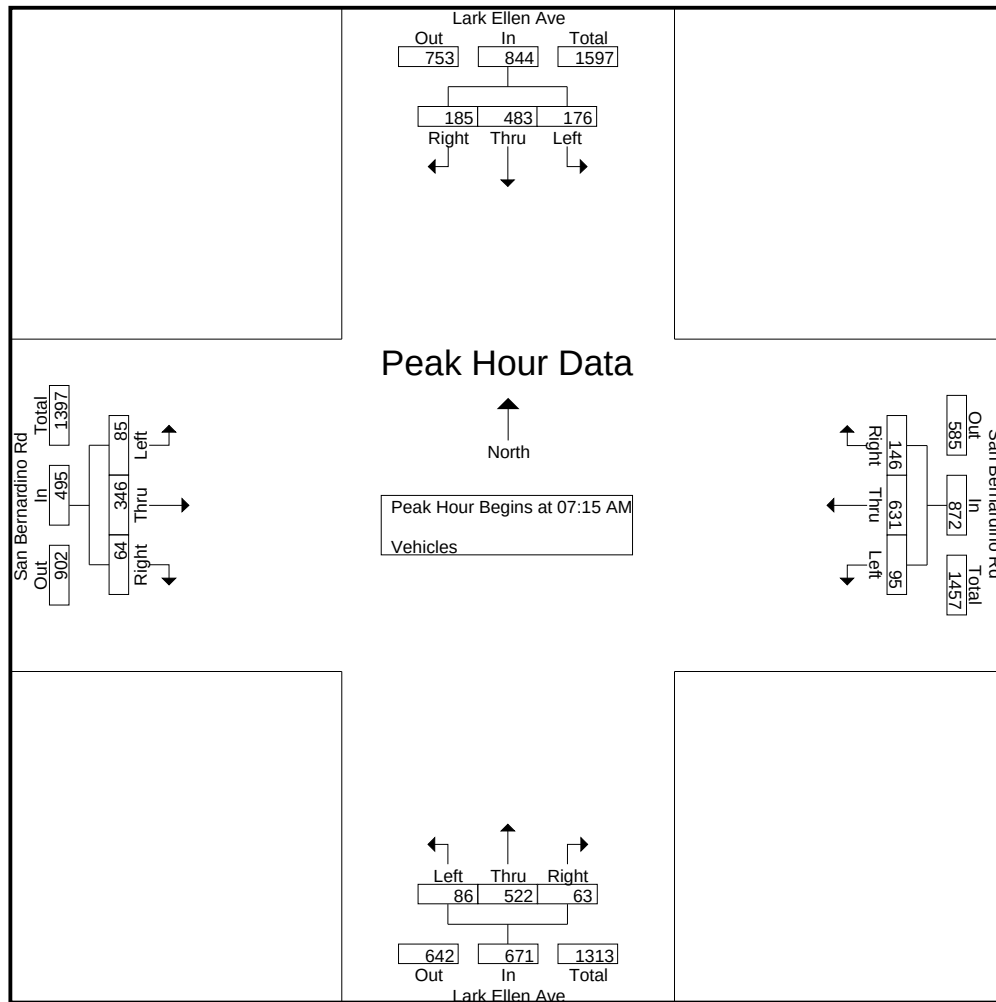
	Lark Ellen Ave Southbound			San Bernardino Rd Westbound			Lark Ellen Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	15	85	15	15	188	11	34	89	13	10	35	12	522
07:15 AM	24	115	29	18	166	26	22	107	10	23	72	13	625
07:30 AM	59	132	59	12	186	72	20	151	12	25	83	14	825
07:45 AM	64	147	76	30	147	28	22	143	25	24	87	13	806
Total	162	479	179	75	687	137	98	490	60	82	277	52	2778
08:00 AM	29	89	21	35	132	20	22	121	16	13	104	24	626
08:15 AM	21	94	17	12	116	13	14	139	19	14	76	11	546
08:30 AM	16	99	10	14	77	23	13	113	15	6	59	11	456
08:45 AM	22	95	13	13	58	14	22	118	14	11	66	18	464
Total	88	377	61	74	383	70	71	491	64	44	305	64	2092
04:00 PM	33	113	17	13	93	17	19	118	27	15	169	32	666
04:15 PM	17	108	12	14	78	26	18	121	20	29	162	26	631
04:30 PM	29	143	20	15	85	23	23	113	27	16	185	28	707
04:45 PM	29	102	19	23	87	30	11	120	48	26	162	34	691
Total	108	466	68	65	343	96	71	472	122	86	678	120	2695
05:00 PM	27	123	7	23	78	22	18	141	23	21	202	35	720
05:15 PM	27	148	11	22	94	26	23	138	26	24	176	40	755
05:30 PM	30	122	12	15	81	24	18	156	30	21	183	26	718
05:45 PM	23	119	18	21	101	28	16	157	29	29	205	28	774
Total	107	512	48	81	354	100	75	592	108	95	766	129	2967
Grand Total	465	1834	356	295	1767	403	315	2045	354	307	2026	365	10532
Apprch %	17.5	69.1	13.4	12	71.7	16.3	11.6	75.4	13	11.4	75.1	13.5	
Total %	4.4	17.4	3.4	2.8	16.8	3.8	3	19.4	3.4	2.9	19.2	3.5	

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	Lark Ellen Ave Southbound				San Bernardino Rd Westbound				Lark Ellen Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	24	115	29	168	18	166	26	210	22	107	10	139	23	72	13	108	625
07:30 AM	59	132	59	250	12	186	72	270	20	151	12	183	25	83	14	122	825
07:45 AM	64	147	76	287	30	147	28	205	22	143	25	190	24	87	13	124	806
08:00 AM	29	89	21	139	35	132	20	187	22	121	16	159	13	104	24	141	626
Total Volume	176	483	185	844	95	631	146	872	86	522	63	671	85	346	64	495	2882
% App. Total	20.9	57.2	21.9		10.9	72.4	16.7		12.8	77.8	9.4		17.2	69.9	12.9		
PHF	.688	.821	.609	.735	.679	.848	.507	.807	.977	.864	.630	.883	.850	.832	.667	.878	.873

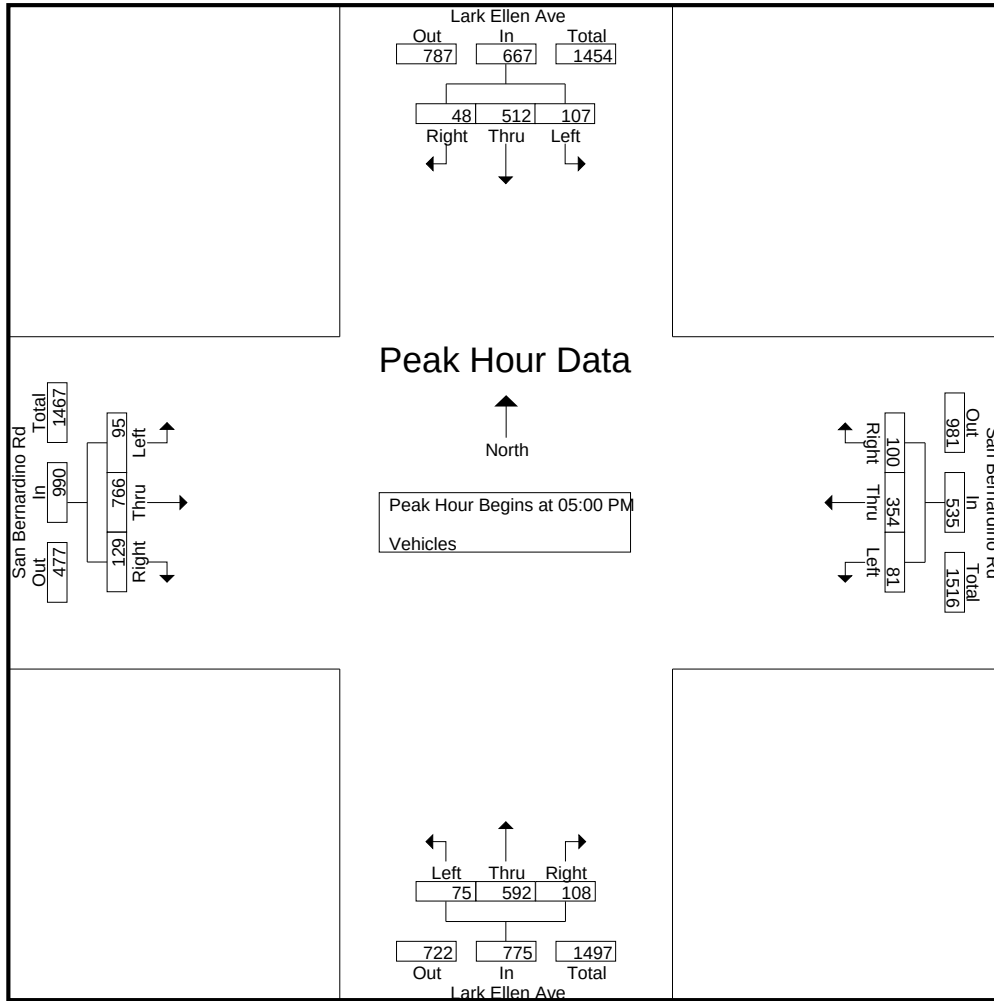


CITY TRAFFIC COUNTERS

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	Lark Ellen Ave Southbound				San Bernardino Rd Westbound				Lark Ellen Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	27	123	7	157	23	78	22	123	18	141	23	182	21	202	35	258	720
05:15 PM	27	148	11	186	22	94	26	142	23	138	26	187	24	176	40	240	755
05:30 PM	30	122	12	164	15	81	24	120	18	156	30	204	21	183	26	230	718
05:45 PM	23	119	18	160	21	101	28	150	16	157	29	202	29	205	28	262	774
Total Volume	107	512	48	667	81	354	100	535	75	592	108	775	95	766	129	990	2967
% App. Total	16	76.8	7.2		15.1	66.2	18.7		9.7	76.4	13.9		9.6	77.4	13		
PHF	.892	.865	.667	.897	.880	.876	.893	.892	.815	.943	.900	.950	.819	.934	.806	.945	.958



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Groups Printed- Bikes & Peds

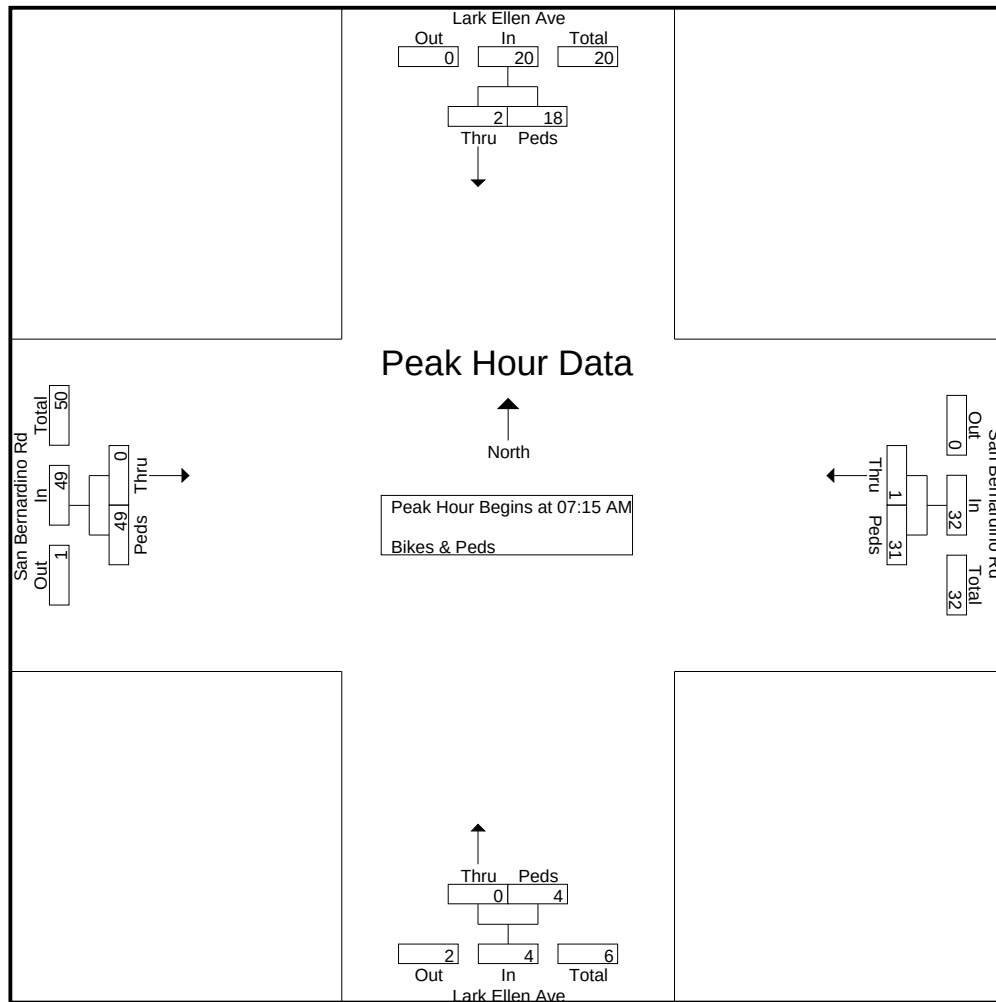
	Lark Ellen Ave Southbound		San Bernardino Rd Westbound		Lark Ellen Ave Northbound		San Bernardino Rd Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	0	5	0	5	0	0	0	2	12
07:15 AM	0	5	0	8	0	1	0	8	22
07:30 AM	1	4	1	10	0	0	0	9	25
07:45 AM	1	6	0	9	0	2	0	25	43
Total	2	20	1	32	0	3	0	44	102
08:00 AM	0	3	0	4	0	1	0	7	15
08:15 AM	0	4	0	3	0	0	0	4	11
08:30 AM	1	1	3	1	0	1	1	2	10
08:45 AM	0	2	0	3	0	1	0	1	7
Total	1	10	3	11	0	3	1	14	43
04:00 PM	0	3	0	3	0	1	1	0	8
04:15 PM	1	3	1	1	0	2	0	0	8
04:30 PM	4	5	0	3	1	0	0	1	14
04:45 PM	1	2	0	1	0	1	0	0	5
Total	6	13	1	8	1	4	1	1	35
05:00 PM	1	5	1	3	0	1	0	1	12
05:15 PM	0	1	0	0	0	0	1	1	3
05:30 PM	0	2	0	1	0	3	0	1	7
05:45 PM	1	1	0	2	0	0	0	0	4
Total	2	9	1	6	0	4	1	3	26
Grand Total	11	52	6	57	1	14	3	62	206
Apprch %	17.5	82.5	9.5	90.5	6.7	93.3	4.6	95.4	
Total %	5.3	25.2	2.9	27.7	0.5	6.8	1.5	30.1	

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	Lark Ellen Ave Southbound			San Bernardino Rd Westbound			Lark Ellen Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	5	5	0	8	8	0	1	1	0	8	8	22
07:30 AM	1	4	5	1	10	11	0	0	0	0	9	9	25
07:45 AM	1	6	7	0	9	9	0	2	2	0	25	25	43
08:00 AM	0	3	3	0	4	4	0	1	1	0	7	7	15
Total Volume	2	18	20	1	31	32	0	4	4	0	49	49	105
% App. Total	10	90		3.1	96.9		0	100		0	100		
PHF	.500	.750	.714	.250	.775	.727	.000	.500	.500	.000	.490	.490	.610

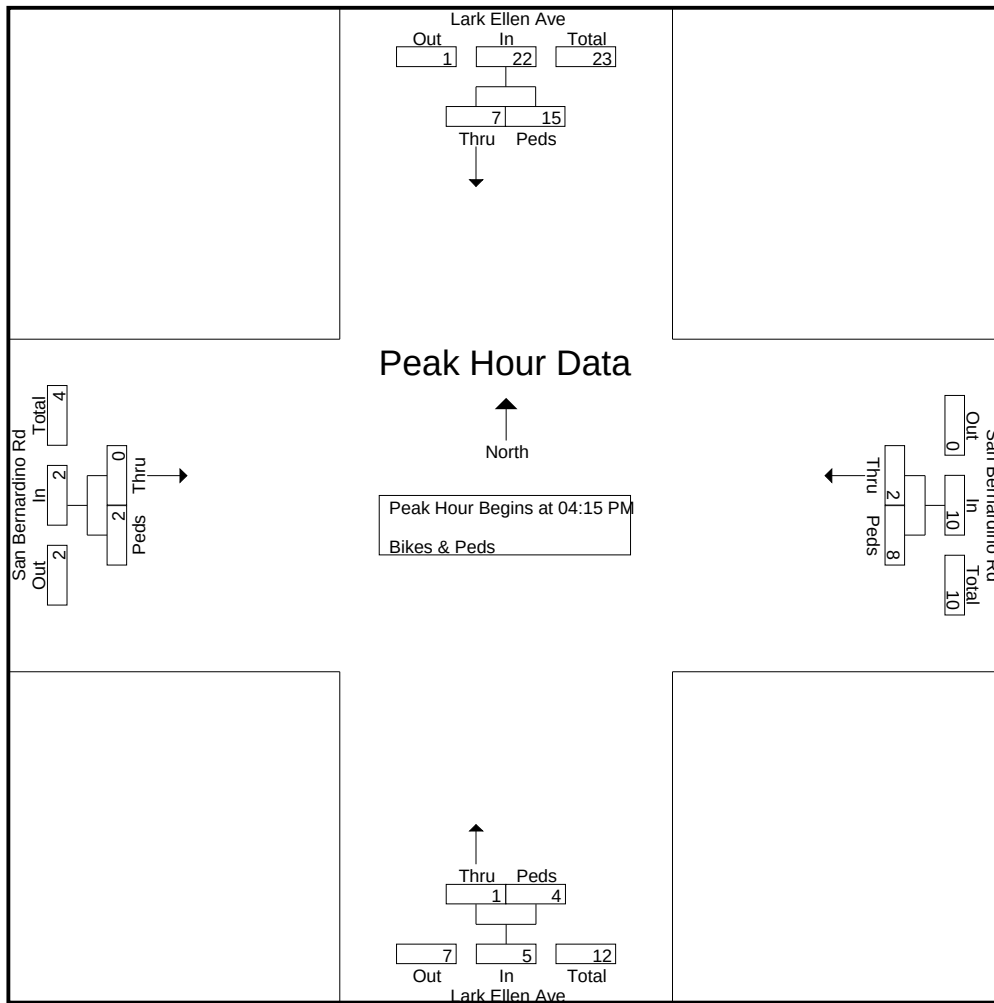


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	Lark Ellen Ave Southbound			San Bernardino Rd Westbound			Lark Ellen Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	1	3	4	1	1	2	0	2	2	0	0	0	8
04:30 PM	4	5	9	0	3	3	1	0	1	0	1	1	14
04:45 PM	1	2	3	0	1	1	0	1	1	0	0	0	5
05:00 PM	1	5	6	1	3	4	0	1	1	0	1	1	12
Total Volume	7	15	22	2	8	10	1	4	5	0	2	2	39
% App. Total	31.8	68.2		20	80		20	80		0	100		
PHF	.438	.750	.611	.500	.667	.625	.250	.500	.625	.000	.500	.500	.696



CITY TRAFFIC COUNTERS
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Groups Printed- Vehicles

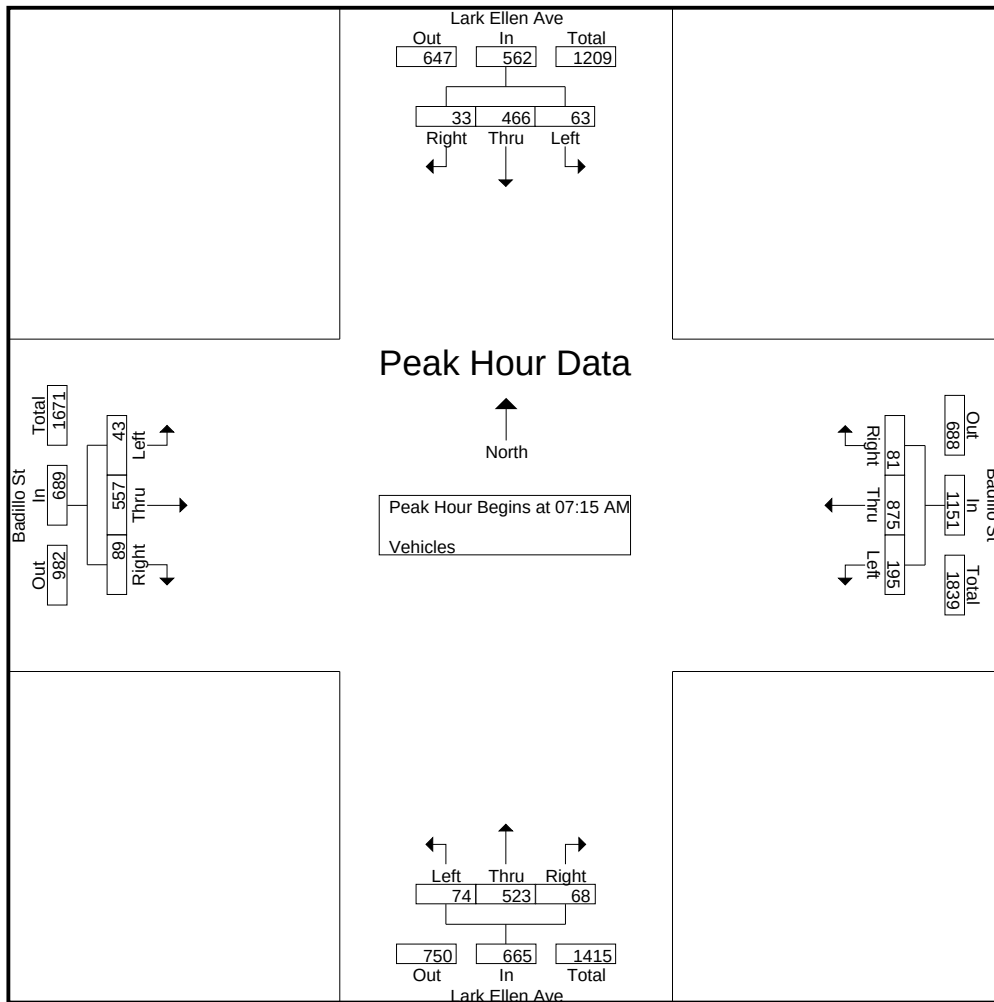
	Lark Ellen Ave Southbound			Badillo St Westbound			Lark Ellen Ave Northbound			Badillo St Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	12	82	12	32	252	22	10	104	18	11	71	7	633
07:15 AM	16	100	6	50	231	27	16	102	11	6	100	16	681
07:30 AM	12	123	5	48	217	25	21	129	13	12	155	22	782
07:45 AM	16	140	6	54	229	18	11	141	17	13	150	22	817
Total	56	445	29	184	929	92	58	476	59	42	476	67	2913
08:00 AM	19	103	16	43	198	11	26	151	27	12	152	29	787
08:15 AM	18	86	6	34	154	12	14	153	28	10	118	7	640
08:30 AM	13	95	12	26	165	15	17	108	21	11	119	5	607
08:45 AM	18	88	9	27	116	12	15	129	23	12	115	8	572
Total	68	372	43	130	633	50	72	541	99	45	504	49	2606
04:00 PM	14	131	7	19	94	13	18	124	27	18	219	30	714
04:15 PM	18	133	14	24	129	14	13	120	21	21	234	19	760
04:30 PM	13	162	13	27	91	19	10	125	18	19	223	23	743
04:45 PM	13	149	6	28	85	17	8	140	30	14	226	21	737
Total	58	575	40	98	399	63	49	509	96	72	902	93	2954
05:00 PM	19	150	16	39	114	17	17	136	21	19	211	28	787
05:15 PM	12	143	16	20	111	15	11	149	30	12	198	30	747
05:30 PM	18	128	6	33	114	16	16	141	25	17	226	29	769
05:45 PM	10	123	7	23	94	13	13	139	22	14	204	25	687
Total	59	544	45	115	433	61	57	565	98	62	839	112	2990
Grand Total	241	1936	157	527	2394	266	236	2091	352	221	2721	321	11463
Apprch %	10.3	82.9	6.7	16.5	75.1	8.3	8.8	78.1	13.1	6.8	83.4	9.8	
Total %	2.1	16.9	1.4	4.6	20.9	2.3	2.1	18.2	3.1	1.9	23.7	2.8	

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	Lark Ellen Ave Southbound				Badillo St Westbound				Lark Ellen Ave Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	16	100	6	122	50	231	27	308	16	102	11	129	6	100	16	122	681
07:30 AM	12	123	5	140	48	217	25	290	21	129	13	163	12	155	22	189	782
07:45 AM	16	140	6	162	54	229	18	301	11	141	17	169	13	150	22	185	817
08:00 AM	19	103	16	138	43	198	11	252	26	151	27	204	12	152	29	193	787
Total Volume	63	466	33	562	195	875	81	1151	74	523	68	665	43	557	89	689	3067
% App. Total	11.2	82.9	5.9		16.9	76	7		11.1	78.6	10.2		6.2	80.8	12.9		
PHF	.829	.832	.516	.867	.903	.947	.750	.934	.712	.866	.630	.815	.827	.898	.767	.892	.938

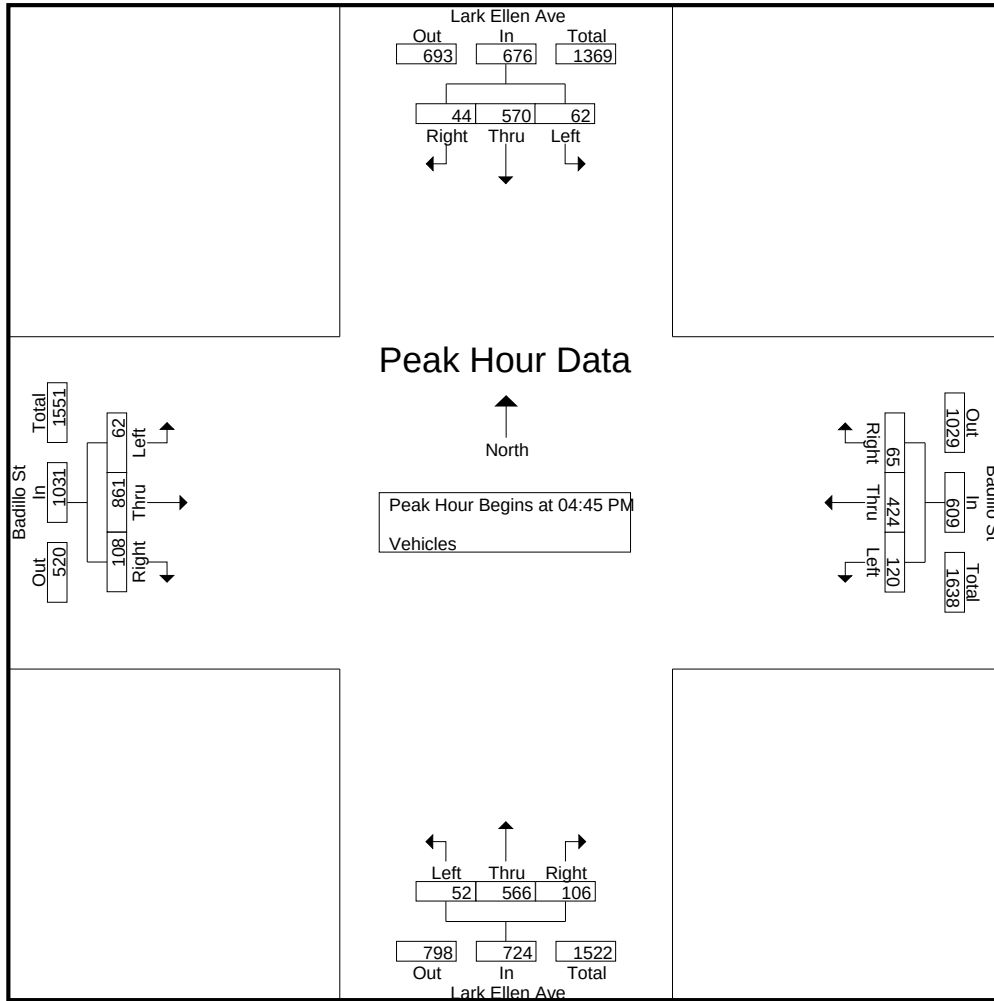


CITY TRAFFIC COUNTERS

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	Lark Ellen Ave Southbound				Badillo St Westbound				Lark Ellen Ave Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	13	149	6	168	28	85	17	130	8	140	30	178	14	226	21	261	737
05:00 PM	19	150	16	185	39	114	17	170	17	136	21	174	19	211	28	258	787
05:15 PM	12	143	16	171	20	111	15	146	11	149	30	190	12	198	30	240	747
05:30 PM	18	128	6	152	33	114	16	163	16	141	25	182	17	226	29	272	769
Total Volume	62	570	44	676	120	424	65	609	52	566	106	724	62	861	108	1031	3040
% App. Total	9.2	84.3	6.5		19.7	69.6	10.7		7.2	78.2	14.6		6	83.5	10.5		
PHF	.816	.950	.688	.914	.769	.930	.956	.896	.765	.950	.883	.953	.816	.952	.900	.948	.966



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Groups Printed- Bikes & Peds

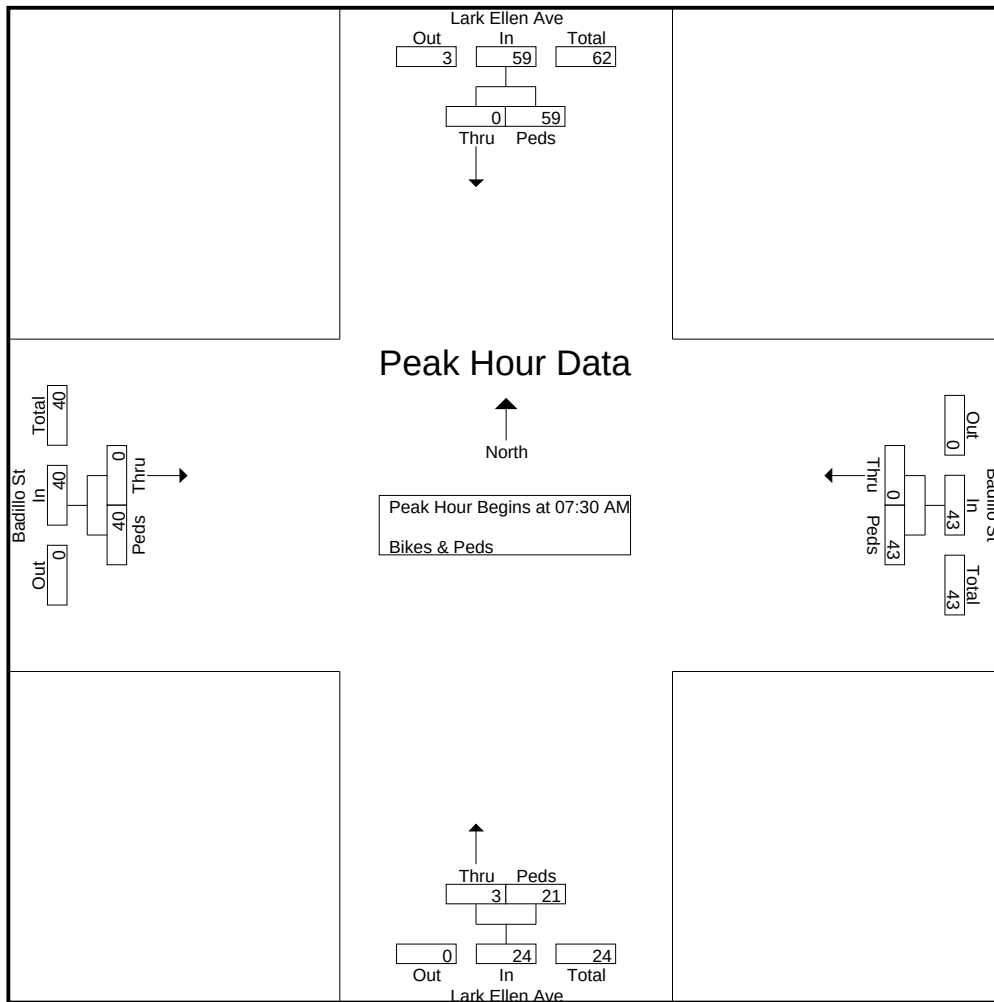
	Lark Ellen Ave Southbound		Badillo St Westbound		Lark Ellen Ave Northbound		Badillo St Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	0	1	1	1	0	2	0	1	6
07:15 AM	0	3	1	3	0	0	0	3	10
07:30 AM	0	6	0	5	2	0	0	3	16
07:45 AM	0	29	0	27	0	3	0	7	66
Total	0	39	2	36	2	5	0	14	98
08:00 AM	0	14	0	7	0	17	0	19	57
08:15 AM	0	10	0	4	1	1	0	11	27
08:30 AM	1	2	1	3	0	0	1	1	9
08:45 AM	0	1	0	1	0	0	0	0	2
Total	1	27	1	15	1	18	1	31	95
04:00 PM	0	2	0	2	0	0	2	0	6
04:30 PM	0	1	0	0	0	2	0	0	3
04:45 PM	0	2	0	0	0	0	0	3	5
Total	0	5	0	2	0	2	2	3	14
05:00 PM	2	1	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	1	1	2
05:30 PM	0	0	0	0	0	0	0	2	2
Total	2	1	0	0	0	0	1	3	7
Grand Total	3	72	3	53	3	25	4	51	214
Apprch %	4	96	5.4	94.6	10.7	89.3	7.3	92.7	
Total %	1.4	33.6	1.4	24.8	1.4	11.7	1.9	23.8	

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	Lark Ellen Ave Southbound			Badillo St Westbound			Lark Ellen Ave Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	6	6	0	5	5	2	0	2	0	3	3	16
07:45 AM	0	29	29	0	27	27	0	3	3	0	7	7	66
08:00 AM	0	14	14	0	7	7	0	17	17	0	19	19	57
08:15 AM	0	10	10	0	4	4	1	1	2	0	11	11	27
Total Volume	0	59	59	0	43	43	3	21	24	0	40	40	166
% App. Total	0	100		0	100		12.5	87.5		0	100		
PHF	.000	.509	.509	.000	.398	.398	.375	.309	.353	.000	.526	.526	.629

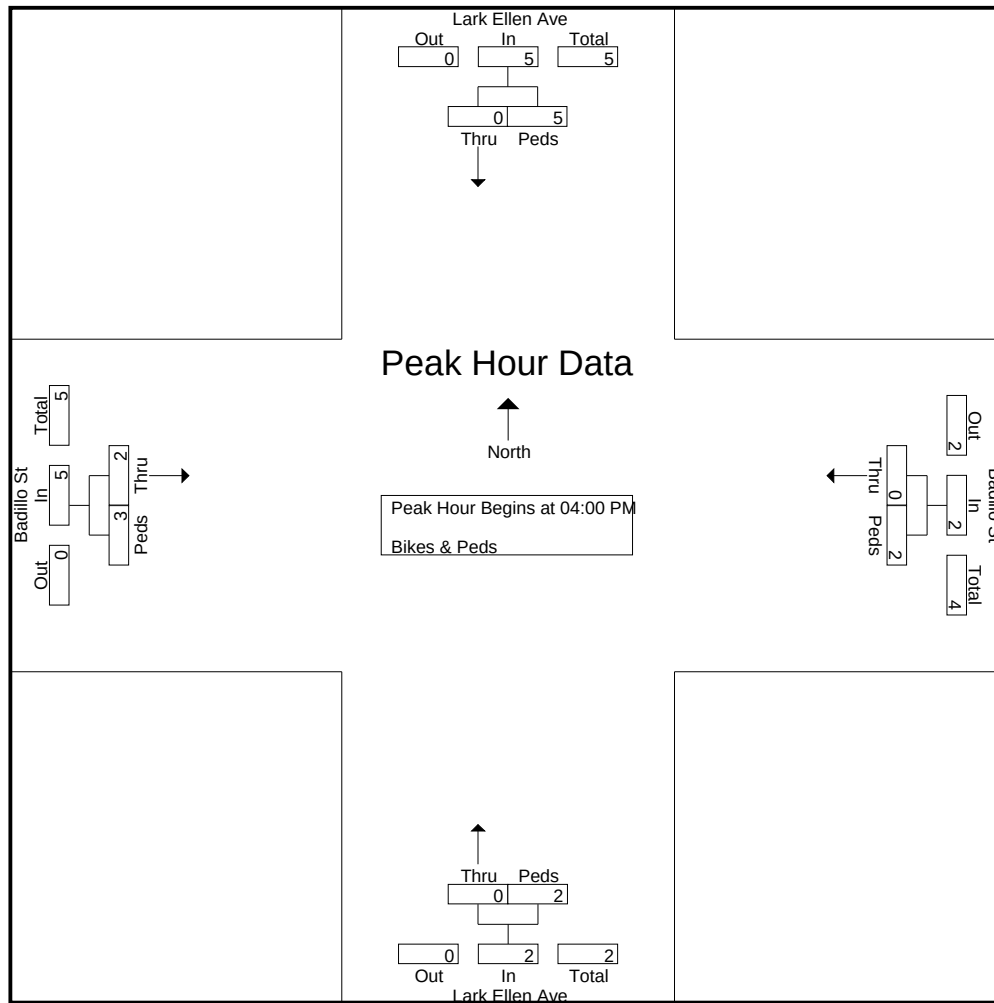


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	Lark Ellen Ave Southbound			Badillo St Westbound			Lark Ellen Ave Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	2	2	0	2	2	0	0	0	2	0	2	6
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	1	0	0	0	0	2	2	0	0	0	3
04:45 PM	0	2	2	0	0	0	0	0	0	0	3	3	5
Total Volume	0	5	5	0	2	2	0	2	2	2	3	5	14
% App. Total	0	100		0	100		0	100		40	60		
PHF	.000	.625	.625	.000	.250	.250	.000	.250	.250	.250	.250	.417	.583



CITY TRAFFIC COUNTERS
WWW.CTCOUNTERS.COM

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Groups Printed- Vehicles

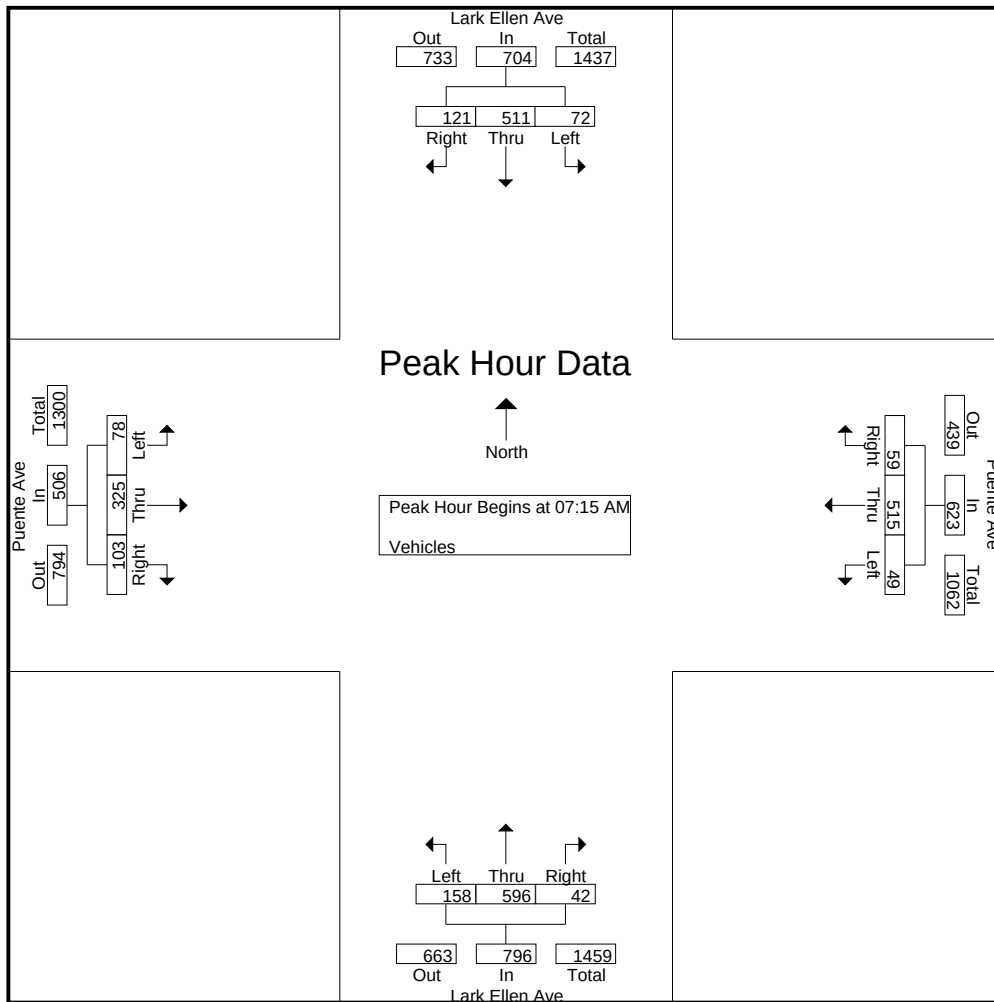
	Lark Ellen Ave Southbound			Puente Ave Westbound			Lark Ellen Ave Northbound			Puente Ave Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	3	88	27	4	129	6	11	131	5	16	37	22	479
07:15 AM	13	122	33	8	137	18	31	113	21	16	83	29	624
07:30 AM	23	146	21	12	117	16	48	150	7	23	97	35	695
07:45 AM	16	121	37	18	141	11	43	168	4	21	90	20	690
Total	55	477	118	42	524	51	133	562	37	76	307	106	2488
08:00 AM	20	122	30	11	120	14	36	165	10	18	55	19	620
08:15 AM	11	132	28	9	84	19	30	160	7	17	55	15	567
08:30 AM	8	117	7	7	68	11	17	135	5	15	69	9	468
08:45 AM	8	119	4	8	45	17	13	142	5	20	47	13	441
Total	47	490	69	35	317	61	96	602	27	70	226	56	2096
04:00 PM	12	198	10	9	49	18	23	151	16	12	137	30	665
04:15 PM	18	167	9	5	64	11	21	124	10	15	129	32	605
04:30 PM	14	188	2	4	58	12	13	149	9	22	155	16	642
04:45 PM	17	158	9	12	66	16	16	171	11	16	148	21	661
Total	61	711	30	30	237	57	73	595	46	65	569	99	2573
05:00 PM	10	199	12	7	63	19	13	160	9	16	152	31	691
05:15 PM	15	207	10	9	74	10	19	175	10	26	151	39	745
05:30 PM	19	183	8	5	59	10	17	178	15	25	146	30	695
05:45 PM	25	170	14	12	56	17	26	193	17	12	135	34	711
Total	69	759	44	33	252	56	75	706	51	79	584	134	2842
Grand Total	232	2437	261	140	1330	225	377	2465	161	290	1686	395	9999
Apprch %	7.9	83.2	8.9	8.3	78.5	13.3	12.6	82.1	5.4	12.2	71.1	16.7	
Total %	2.3	24.4	2.6	1.4	13.3	2.3	3.8	24.7	1.6	2.9	16.9	4	

CITY TRAFFIC COUNTERS

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	Lark Ellen Ave Southbound				Puente Ave Westbound				Lark Ellen Ave Northbound				Puente Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	13	122	33	168	8	137	18	163	31	113	21	165	16	83	29	128	624
07:30 AM	23	146	21	190	12	117	16	145	48	150	7	205	23	97	35	155	695
07:45 AM	16	121	37	174	18	141	11	170	43	168	4	215	21	90	20	131	690
08:00 AM	20	122	30	172	11	120	14	145	36	165	10	211	18	55	19	92	620
Total Volume	72	511	121	704	49	515	59	623	158	596	42	796	78	325	103	506	2629
% App. Total	10.2	72.6	17.2		7.9	82.7	9.5		19.8	74.9	5.3		15.4	64.2	20.4		
PHF	.783	.875	.818	.926	.681	.913	.819	.916	.823	.887	.500	.926	.848	.838	.736	.816	.946

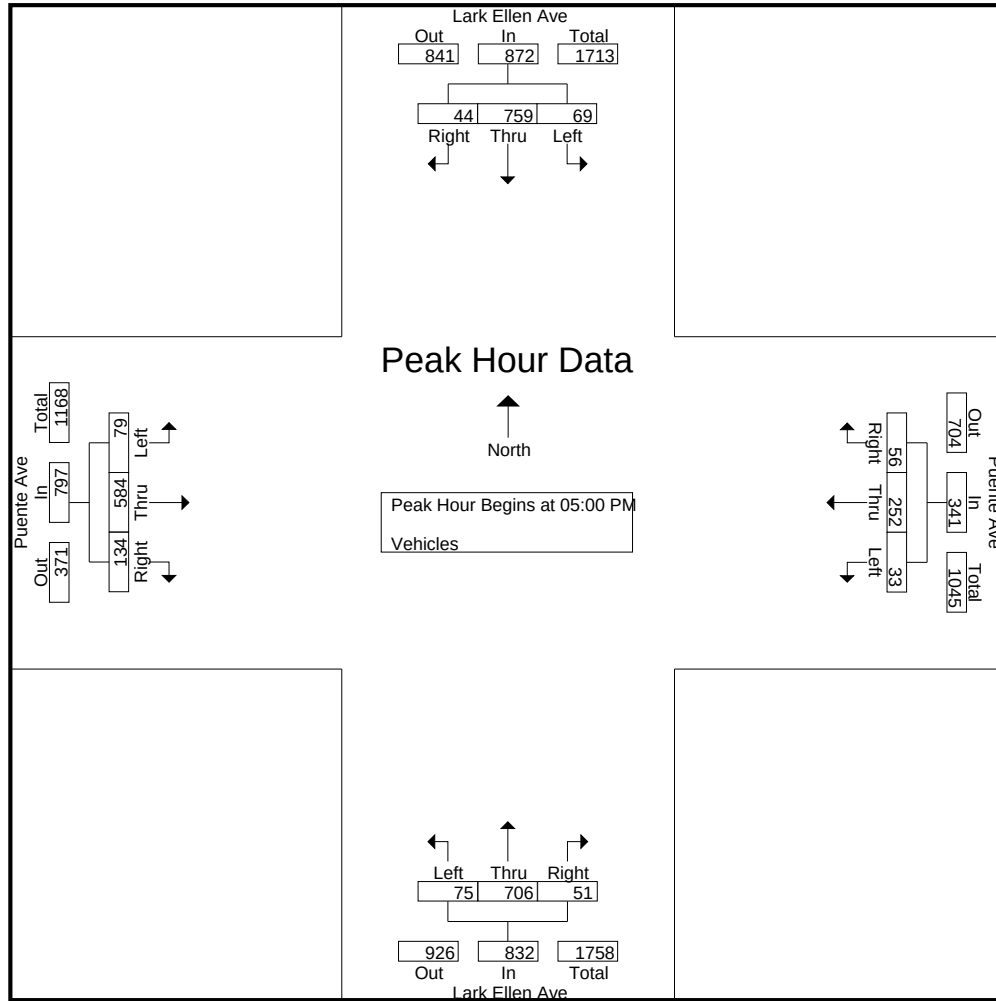


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

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 Site Code : 00000000
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	Lark Ellen Ave Southbound				Puente Ave Westbound				Lark Ellen Ave Northbound				Puente Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	10	199	12	221	7	63	19	89	13	160	9	182	16	152	31	199	691
05:15 PM	15	207	10	232	9	74	10	93	19	175	10	204	26	151	39	216	745
05:30 PM	19	183	8	210	5	59	10	74	17	178	15	210	25	146	30	201	695
05:45 PM	25	170	14	209	12	56	17	85	26	193	17	236	12	135	34	181	711
Total Volume	69	759	44	872	33	252	56	341	75	706	51	832	79	584	134	797	2842
% App. Total	7.9	87	5		9.7	73.9	16.4		9	84.9	6.1		9.9	73.3	16.8		
PHF	.690	.917	.786	.940	.688	.851	.737	.917	.721	.915	.750	.881	.760	.961	.859	.922	.954



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Groups Printed- Bikes & Peds

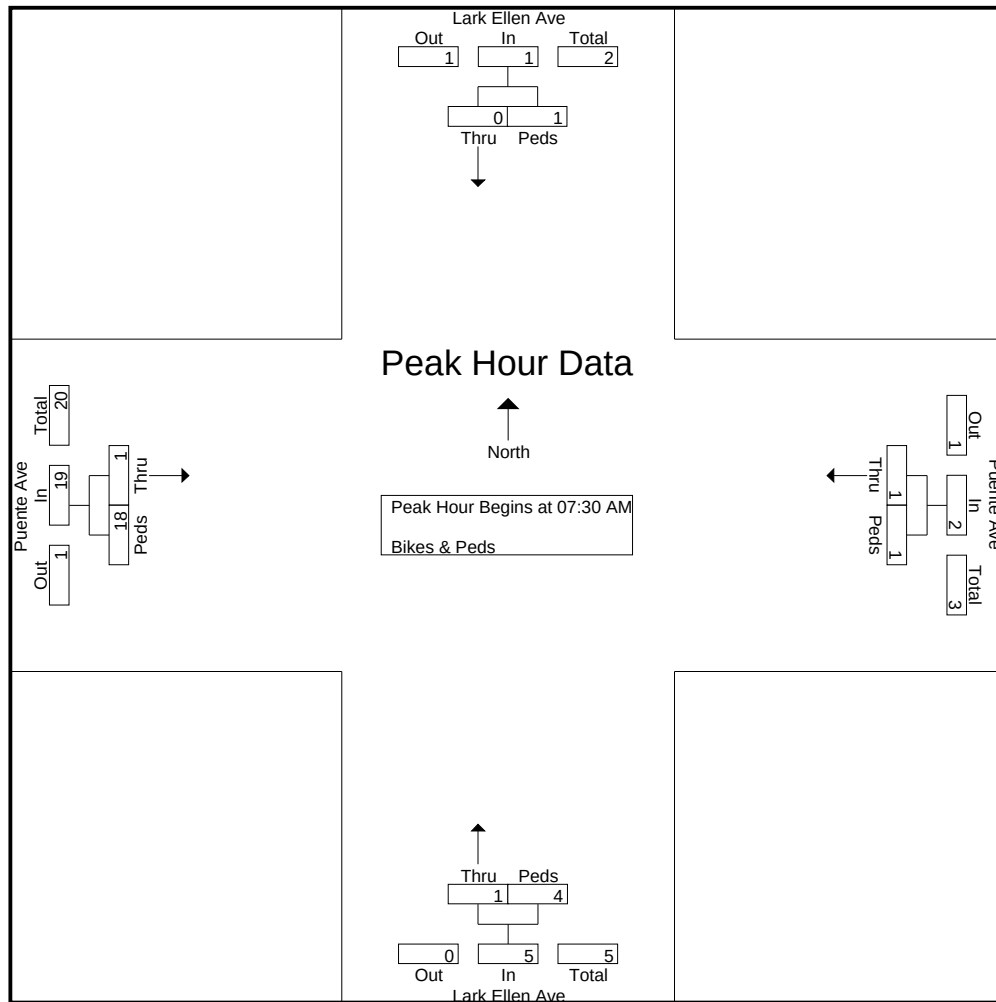
	Lark Ellen Ave Southbound		Puente Ave Westbound		Lark Ellen Ave Northbound		Puente Ave Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	0	0	0	4	1	2	1	0	8
07:15 AM	0	0	0	0	0	0	0	2	2
07:30 AM	0	0	0	1	0	0	1	6	8
07:45 AM	0	0	0	0	1	2	0	2	5
Total	0	0	0	5	2	4	2	10	23
08:00 AM	0	1	0	0	0	2	0	8	11
08:15 AM	0	0	1	0	0	0	0	2	3
08:30 AM	0	0	0	3	0	1	1	3	8
08:45 AM	0	2	1	0	0	0	0	0	3
Total	0	3	2	3	0	3	1	13	25
04:00 PM	0	0	0	0	0	0	0	2	2
04:15 PM	0	0	0	2	0	1	0	0	3
04:45 PM	0	1	0	1	0	0	1	1	4
Total	0	1	0	3	0	1	1	3	9
05:00 PM	0	0	0	0	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	1	0	1
05:30 PM	0	2	0	0	1	0	0	0	3
05:45 PM	0	1	0	1	0	0	0	0	2
Total	0	3	0	1	1	0	1	2	8
Grand Total	0	7	2	12	3	8	5	28	65
Apprch %	0	100	14.3	85.7	27.3	72.7	15.2	84.8	
Total %	0	10.8	3.1	18.5	4.6	12.3	7.7	43.1	

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	Lark Ellen Ave Southbound			Puente Ave Westbound			Lark Ellen Ave Northbound			Puente Ave Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	0	0	0	1	1	0	0	0	1	6	7	8
07:45 AM	0	0	0	0	0	0	1	2	3	0	2	2	5
08:00 AM	0	1	1	0	0	0	0	2	2	0	8	8	11
08:15 AM	0	0	0	1	0	1	0	0	0	0	2	2	3
Total Volume	0	1	1	1	1	2	1	4	5	1	18	19	27
% App. Total	0	100		50	50		20	80		5.3	94.7		
PHF	.000	.250	.250	.250	.250	.500	.250	.500	.417	.250	.563	.594	.614

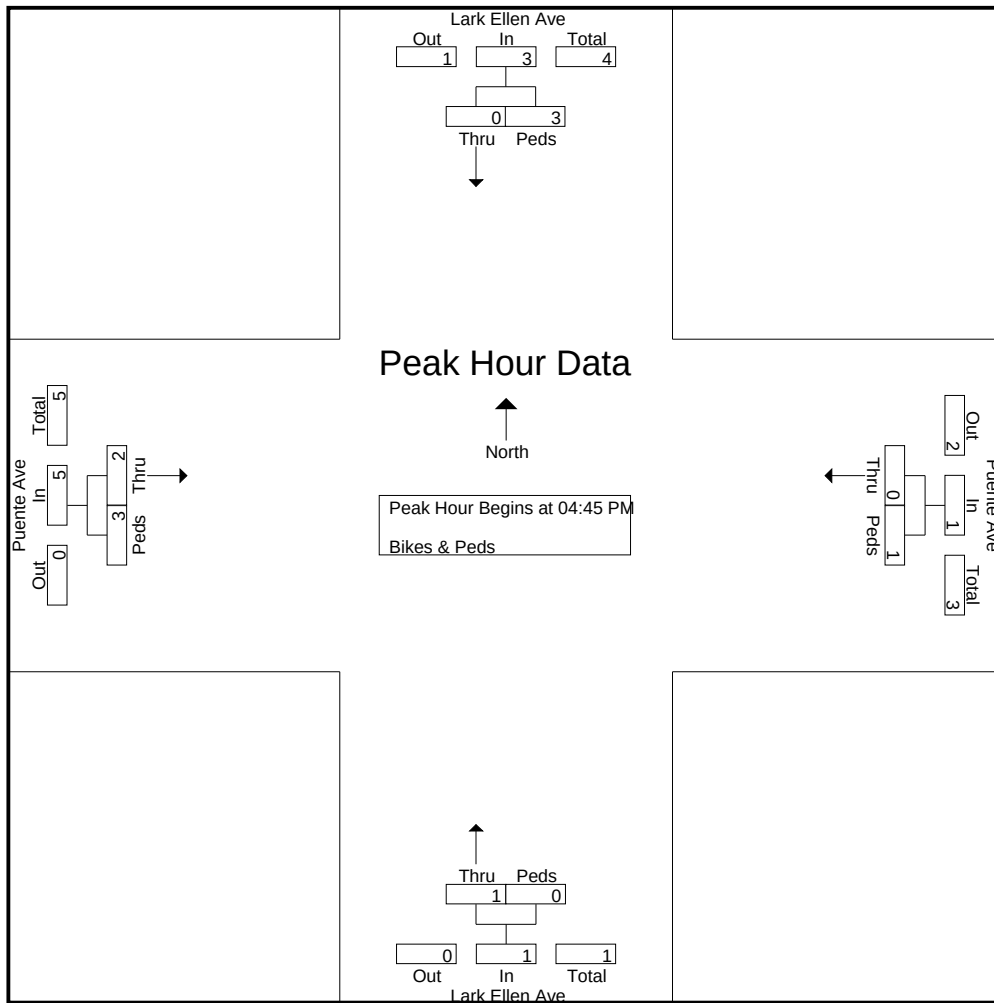


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	Lark Ellen Ave Southbound			Puente Ave Westbound			Lark Ellen Ave Northbound			Puente Ave Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	0	1	1	0	1	1	0	0	0	1	1	2	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	2	2	0	0	0	1	0	1	0	0	0	3
Total Volume	0	3	3	0	1	1	1	0	1	2	3	5	10
% App. Total	0	100		0	100		100	0		40	60		
PHF	.000	.375	.375	.000	.250	.250	.250	.000	.250	.500	.375	.625	.625



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Groups Printed- Vehicles

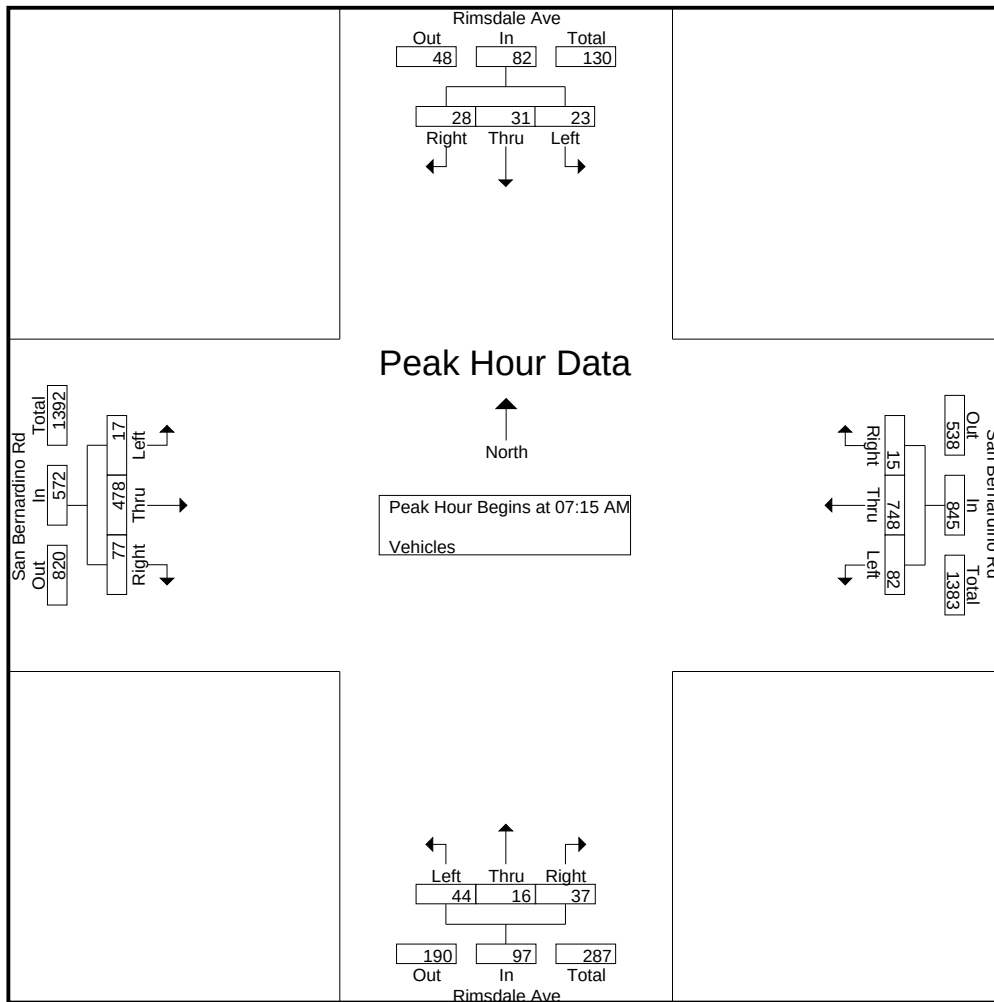
	Rimsdale Ave Southbound			San Bernardino Rd Westbound			Rimsdale Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	4	7	9	18	176	10	12	4	5	3	62	8	318
07:15 AM	5	6	5	21	164	4	9	1	9	1	81	24	330
07:30 AM	4	5	13	23	255	3	9	1	6	4	133	25	481
07:45 AM	8	8	0	17	181	4	14	6	13	5	142	19	417
Total	21	26	27	79	776	21	44	12	33	13	418	76	1546
08:00 AM	6	12	10	21	148	4	12	8	9	7	122	9	368
08:15 AM	9	8	9	13	112	9	7	6	16	9	86	13	297
08:30 AM	11	11	6	10	95	14	12	6	10	7	85	11	278
08:45 AM	10	6	5	15	78	6	5	1	9	7	86	13	241
Total	36	37	30	59	433	33	36	21	44	30	379	46	1184
04:00 PM	18	9	11	9	103	24	22	17	12	12	202	19	458
04:15 PM	21	14	11	21	92	12	14	18	18	6	177	27	431
04:30 PM	25	14	14	10	108	18	17	7	16	16	172	25	442
04:45 PM	24	13	9	8	112	12	16	7	22	9	186	29	447
Total	88	50	45	48	415	66	69	49	68	43	737	100	1778
05:00 PM	15	10	11	18	114	11	11	16	24	15	201	30	476
05:15 PM	14	6	11	17	95	7	20	7	40	10	219	19	465
05:30 PM	11	5	7	10	114	11	19	6	29	14	210	26	462
05:45 PM	8	6	9	11	135	5	18	5	18	11	225	17	468
Total	48	27	38	56	458	34	68	34	111	50	855	92	1871
Grand Total	193	140	140	242	2082	154	217	116	256	136	2389	314	6379
Apprch %	40.8	29.6	29.6	9.8	84	6.2	36.8	19.7	43.5	4.8	84.1	11.1	
Total %	3	2.2	2.2	3.8	32.6	2.4	3.4	1.8	4	2.1	37.5	4.9	

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	Rimsdale Ave Southbound				San Bernardino Rd Westbound				Rimsdale Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	6	5	16	21	164	4	189	9	1	9	19	1	81	24	106	330
07:30 AM	4	5	13	22	23	255	3	281	9	1	6	16	4	133	25	162	481
07:45 AM	8	8	0	16	17	181	4	202	14	6	13	33	5	142	19	166	417
08:00 AM	6	12	10	28	21	148	4	173	12	8	9	29	7	122	9	138	368
Total Volume	23	31	28	82	82	748	15	845	44	16	37	97	17	478	77	572	1596
% App. Total	28	37.8	34.1		9.7	88.5	1.8		45.4	16.5	38.1		3	83.6	13.5		
PHF	.719	.646	.538	.732	.891	.733	.938	.752	.786	.500	.712	.735	.607	.842	.770	.861	.830

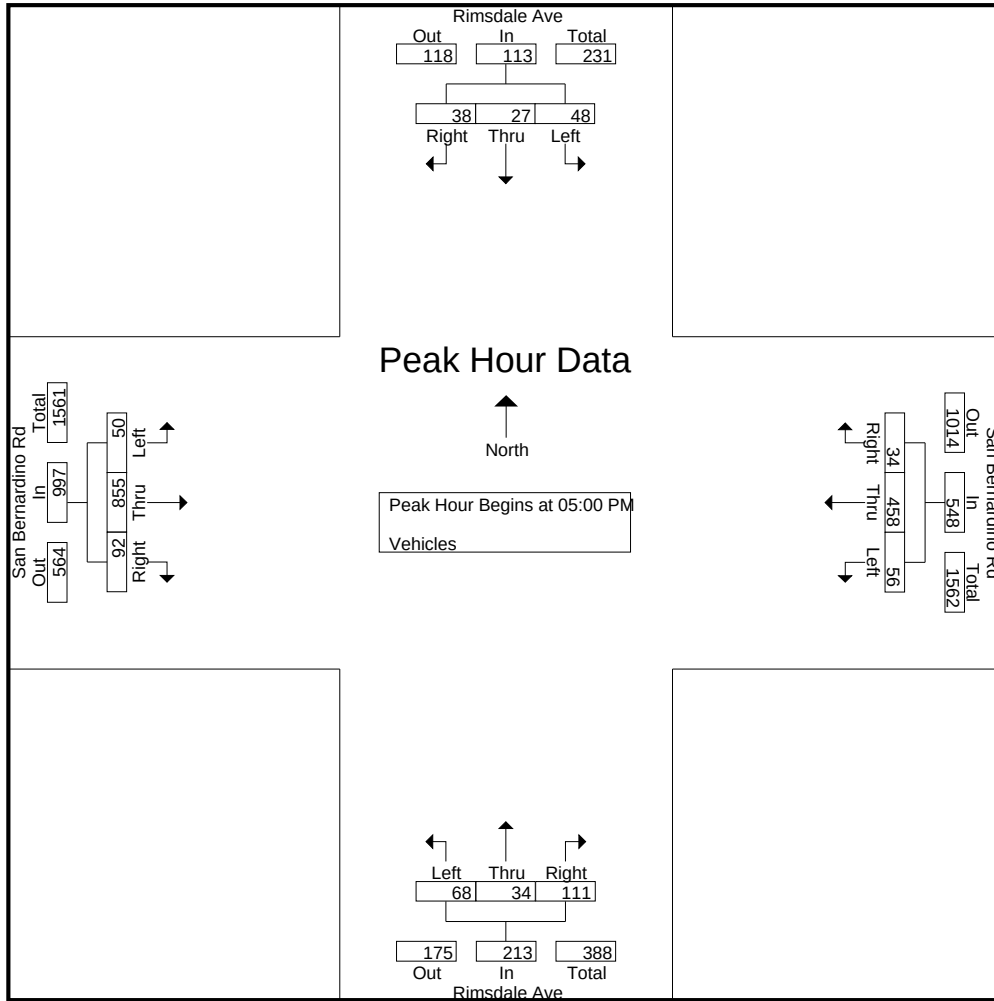


CITY TRAFFIC COUNTERS

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	Rimsdale Ave Southbound				San Bernardino Rd Westbound				Rimsdale Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	15	10	11	36	18	114	11	143	11	16	24	51	15	201	30	246	476
05:15 PM	14	6	11	31	17	95	7	119	20	7	40	67	10	219	19	248	465
05:30 PM	11	5	7	23	10	114	11	135	19	6	29	54	14	210	26	250	462
05:45 PM	8	6	9	23	11	135	5	151	18	5	18	41	11	225	17	253	468
Total Volume	48	27	38	113	56	458	34	548	68	34	111	213	50	855	92	997	1871
% App. Total	42.5	23.9	33.6		10.2	83.6	6.2		31.9	16	52.1		5	85.8	9.2		
PHF	.800	.675	.864	.785	.778	.848	.773	.907	.850	.531	.694	.795	.833	.950	.767	.985	.983



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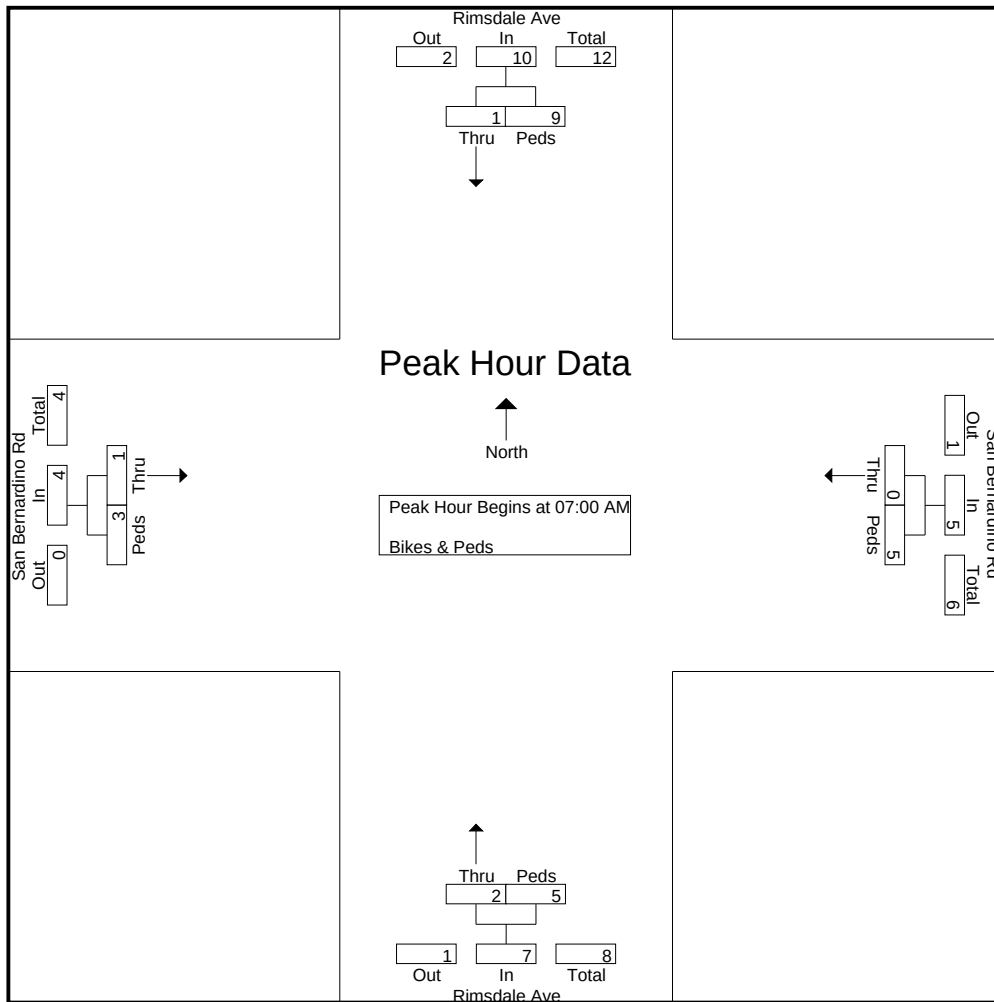
Groups Printed- Bikes & Peds

Start Time	Rimsdale Ave Southbound		San Bernardino Rd Westbound		Rimsdale Ave Northbound		San Bernardino Rd Eastbound		Int. Total
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	
07:00 AM	0	2	0	0	1	1	1	1	6
07:15 AM	0	3	0	1	0	1	0	2	7
07:30 AM	1	2	0	2	1	3	0	0	9
07:45 AM	0	2	0	2	0	0	0	0	4
Total	1	9	0	5	2	5	1	3	26
08:00 AM	0	1	0	0	1	1	0	0	3
08:15 AM	0	3	0	3	0	0	0	1	7
08:30 AM	1	1	0	0	1	2	0	0	5
08:45 AM	0	1	0	0	0	0	0	0	1
Total	1	6	0	3	2	3	0	1	16
04:00 PM	0	3	0	1	0	1	0	1	6
04:15 PM	2	2	0	2	1	2	0	2	11
04:30 PM	1	1	0	5	2	2	0	0	11
04:45 PM	2	5	0	4	0	0	1	0	12
Total	5	11	0	12	3	5	1	3	40
05:00 PM	0	2	0	2	1	2	0	0	7
05:15 PM	1	0	0	1	0	4	0	3	9
05:30 PM	0	0	0	0	0	3	0	0	3
05:45 PM	0	2	0	0	3	0	1	0	6
Total	1	4	0	3	4	9	1	3	25
Grand Total	8	30	0	23	11	22	3	10	107
Apprch %	21.1	78.9	0	100	33.3	66.7	23.1	76.9	
Total %	7.5	28	0	21.5	10.3	20.6	2.8	9.3	

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	Rimsdale Ave Southbound			San Bernardino Rd Westbound			Rimsdale Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	2	2	0	0	0	1	1	2	1	1	2	6
07:15 AM	0	3	3	0	1	1	0	1	1	0	2	2	7
07:30 AM	1	2	3	0	2	2	1	3	4	0	0	0	9
07:45 AM	0	2	2	0	2	2	0	0	0	0	0	0	4
Total Volume	1	9	10	0	5	5	2	5	7	1	3	4	26
% App. Total	10	90		0	100		28.6	71.4		25	75		
PHF	.250	.750	.833	.000	.625	.625	.500	.417	.438	.250	.375	.500	.722

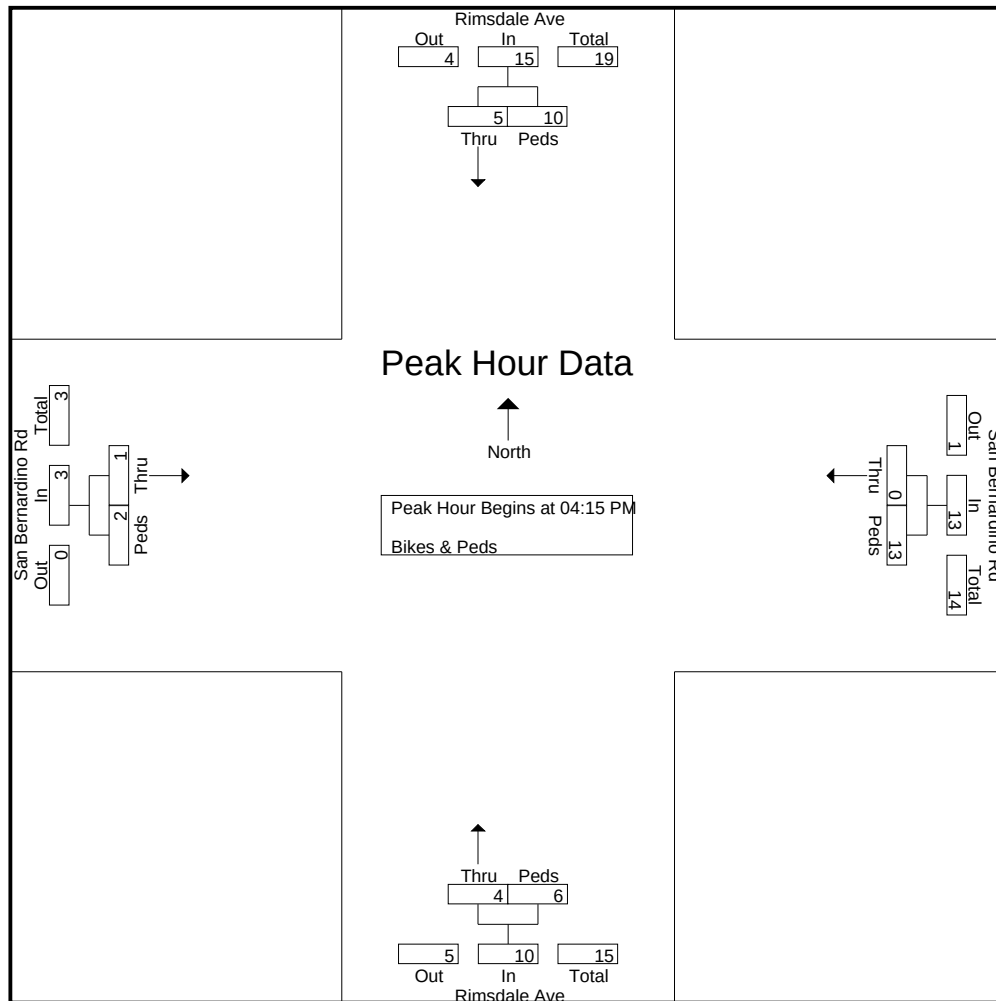


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	Rimsdale Ave Southbound			San Bernardino Rd Westbound			Rimsdale Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	2	2	4	0	2	2	1	2	3	0	2	2	11
04:30 PM	1	1	2	0	5	5	2	2	4	0	0	0	11
04:45 PM	2	5	7	0	4	4	0	0	0	1	0	1	12
05:00 PM	0	2	2	0	2	2	1	2	3	0	0	0	7
Total Volume	5	10	15	0	13	13	4	6	10	1	2	3	41
% App. Total	33.3	66.7		0	100		40	60		33.3	66.7		
PHF	.625	.500	.536	.000	.650	.650	.500	.750	.625	.250	.250	.375	.854



CITY TRAFFIC COUNTERS
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Groups Printed- Vehicles

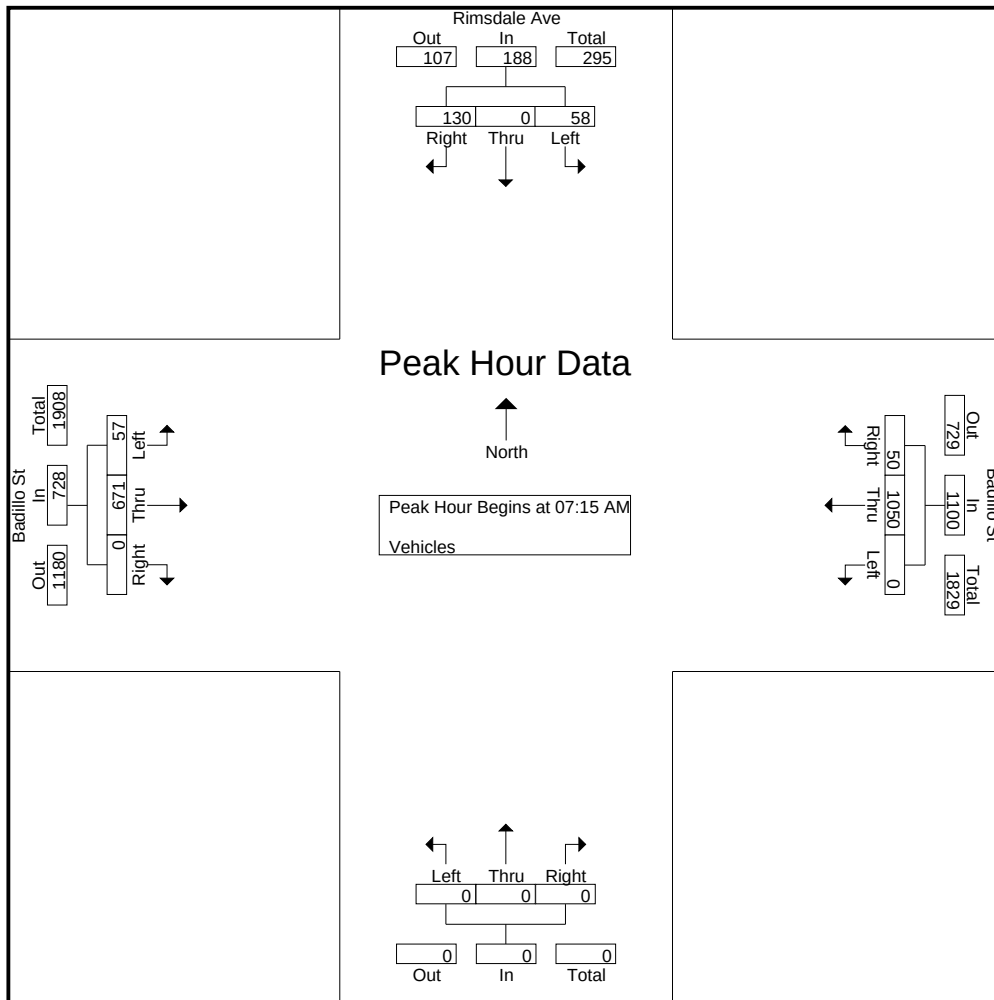
	Rimsdale Ave Southbound			Badillo St Westbound			Northbound			Badillo St Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	13	0	23	0	292	6	0	0	0	15	82	0	431
07:15 AM	17	0	29	0	267	10	0	0	0	11	121	0	455
07:30 AM	12	0	40	0	264	8	0	0	0	13	188	0	525
07:45 AM	13	0	33	0	272	20	0	0	0	19	173	0	530
Total	55	0	125	0	1095	44	0	0	0	58	564	0	1941
08:00 AM	16	0	28	0	247	12	0	0	0	14	189	0	506
08:15 AM	9	0	24	0	182	10	0	0	0	25	135	0	385
08:30 AM	17	0	10	0	186	11	0	0	0	16	117	0	357
08:45 AM	11	0	16	0	139	1	0	0	0	17	157	0	341
Total	53	0	78	0	754	34	0	0	0	72	598	0	1589
04:00 PM	15	0	10	0	136	10	0	0	0	25	251	0	447
04:15 PM	16	0	18	0	155	15	0	0	0	31	245	0	480
04:30 PM	25	0	13	0	129	17	0	0	0	14	265	0	463
04:45 PM	21	0	7	0	133	10	0	0	0	27	251	0	449
Total	77	0	48	0	553	52	0	0	0	97	1012	0	1839
05:00 PM	18	0	19	0	170	17	0	0	0	26	268	0	518
05:15 PM	12	0	16	0	152	11	0	0	0	25	250	0	466
05:30 PM	20	0	14	0	168	15	0	0	0	29	279	0	525
05:45 PM	11	0	18	0	123	12	0	0	0	11	241	0	416
Total	61	0	67	0	613	55	0	0	0	91	1038	0	1925
Grand Total	246	0	318	0	3015	185	0	0	0	318	3212	0	7294
Apprch %	43.6	0	56.4	0	94.2	5.8	0	0	0	9	91	0	
Total %	3.4	0	4.4	0	41.3	2.5	0	0	0	4.4	44	0	

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	Rimsdale Ave Southbound				Badillo St Westbound				Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	17	0	29	46	0	267	10	277	0	0	0	0	11	121	0	132	455
07:30 AM	12	0	40	52	0	264	8	272	0	0	0	0	13	188	0	201	525
07:45 AM	13	0	33	46	0	272	20	292	0	0	0	0	19	173	0	192	530
08:00 AM	16	0	28	44	0	247	12	259	0	0	0	0	14	189	0	203	506
Total Volume	58	0	130	188	0	1050	50	1100	0	0	0	0	57	671	0	728	2016
% App. Total	30.9	0	69.1		0	95.5	4.5		0	0	0		7.8	92.2	0		
PHF	.853	.000	.813	.904	.000	.965	.625	.942	.000	.000	.000	.000	.750	.888	.000	.897	.951

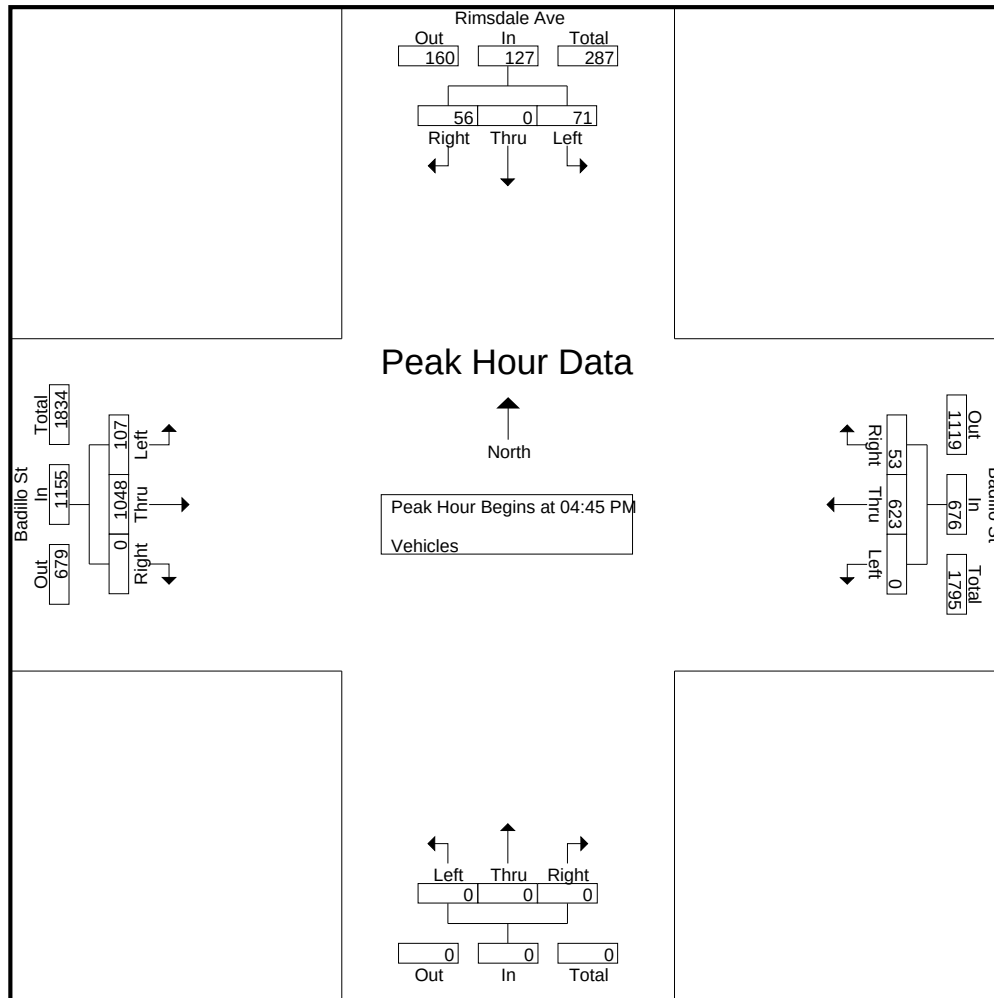


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	Rimsdale Ave Southbound				Badillo St Westbound				Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	21	0	7	28	0	133	10	143	0	0	0	0	27	251	0	278	449
05:00 PM	18	0	19	37	0	170	17	187	0	0	0	0	26	268	0	294	518
05:15 PM	12	0	16	28	0	152	11	163	0	0	0	0	25	250	0	275	466
05:30 PM	20	0	14	34	0	168	15	183	0	0	0	0	29	279	0	308	525
Total Volume	71	0	56	127	0	623	53	676	0	0	0	0	107	1048	0	1155	1958
% App. Total	55.9	0	44.1		0	92.2	7.8		0	0	0		9.3	90.7	0		
PHF	.845	.000	.737	.858	.000	.916	.779	.904	.000	.000	.000	.000	.922	.939	.000	.938	.932



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Groups Printed- Bikes & Peds

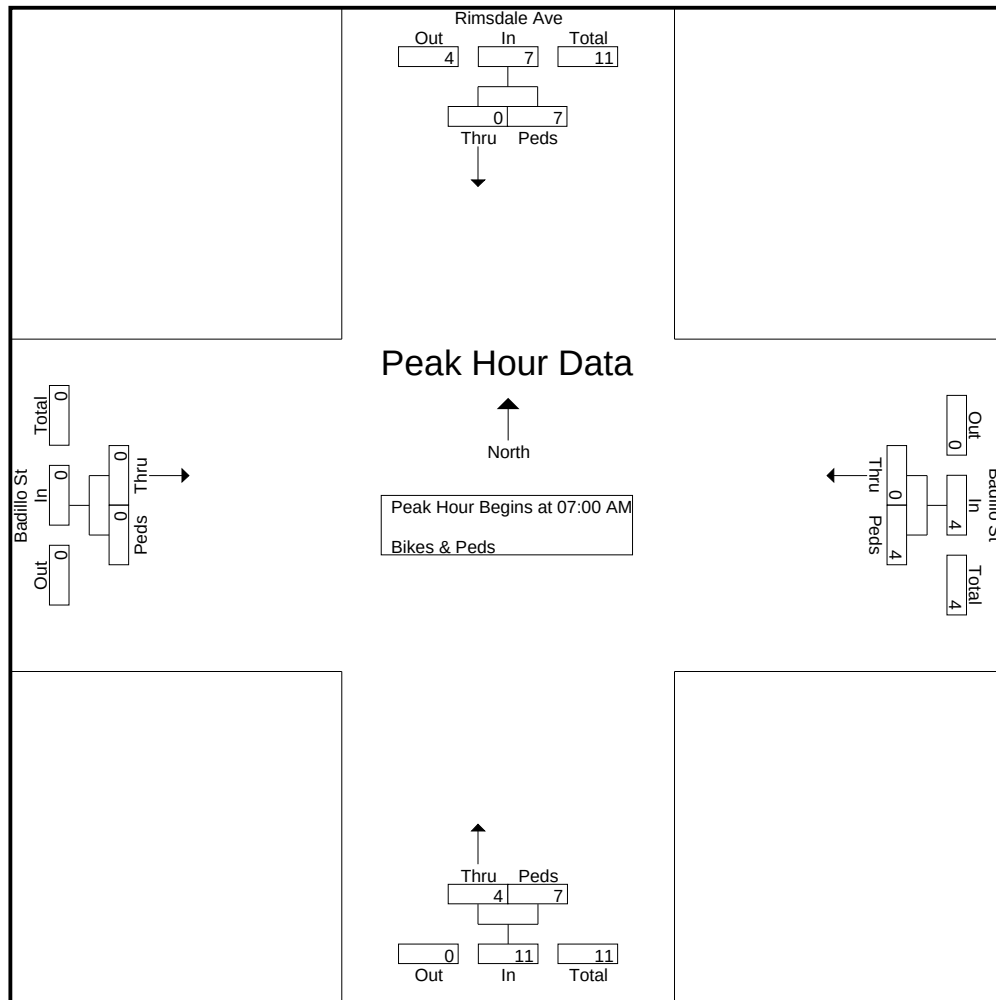
Start Time	Rimsdale Ave Southbound		Badillo St Westbound		Northbound		Badillo St Eastbound		Int. Total
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	
07:00 AM	0	2	0	3	3	3	0	0	11
07:15 AM	0	4	0	1	1	1	0	0	7
07:30 AM	0	0	0	0	0	1	0	0	1
07:45 AM	0	1	0	0	0	2	0	0	3
Total	0	7	0	4	4	7	0	0	22
08:00 AM	0	1	0	0	0	0	0	0	1
08:15 AM	1	0	0	0	0	0	0	0	1
08:30 AM	0	2	0	1	0	0	0	0	3
08:45 AM	2	0	0	0	0	0	0	0	2
Total	3	3	0	1	0	0	0	0	7
04:00 PM	0	1	1	0	1	0	1	0	4
04:15 PM	2	0	2	0	0	0	0	1	5
04:30 PM	0	0	0	0	1	0	1	0	2
04:45 PM	0	1	0	0	2	0	2	0	5
Total	2	2	3	0	4	0	4	1	16
05:00 PM	1	0	1	0	0	1	0	0	3
05:30 PM	0	2	0	0	1	0	0	0	3
05:45 PM	1	0	0	0	0	0	0	0	1
Total	2	2	1	0	1	1	0	0	7
Grand Total	7	14	4	5	9	8	4	1	52
Apprch %	33.3	66.7	44.4	55.6	52.9	47.1	80	20	
Total %	13.5	26.9	7.7	9.6	17.3	15.4	7.7	1.9	

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	Rimsdale Ave Southbound			Badillo St Westbound			Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	2	2	0	3	3	3	3	6	0	0	0	11
07:15 AM	0	4	4	0	1	1	1	1	2	0	0	0	7
07:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	1	1	0	0	0	0	2	2	0	0	0	3
Total Volume	0	7	7	0	4	4	4	7	11	0	0	0	22
% App. Total	0	100		0	100		36.4	63.6		0	0		
PHF	.000	.438	.438	.000	.333	.333	.333	.583	.458	.000	.000	.000	.500

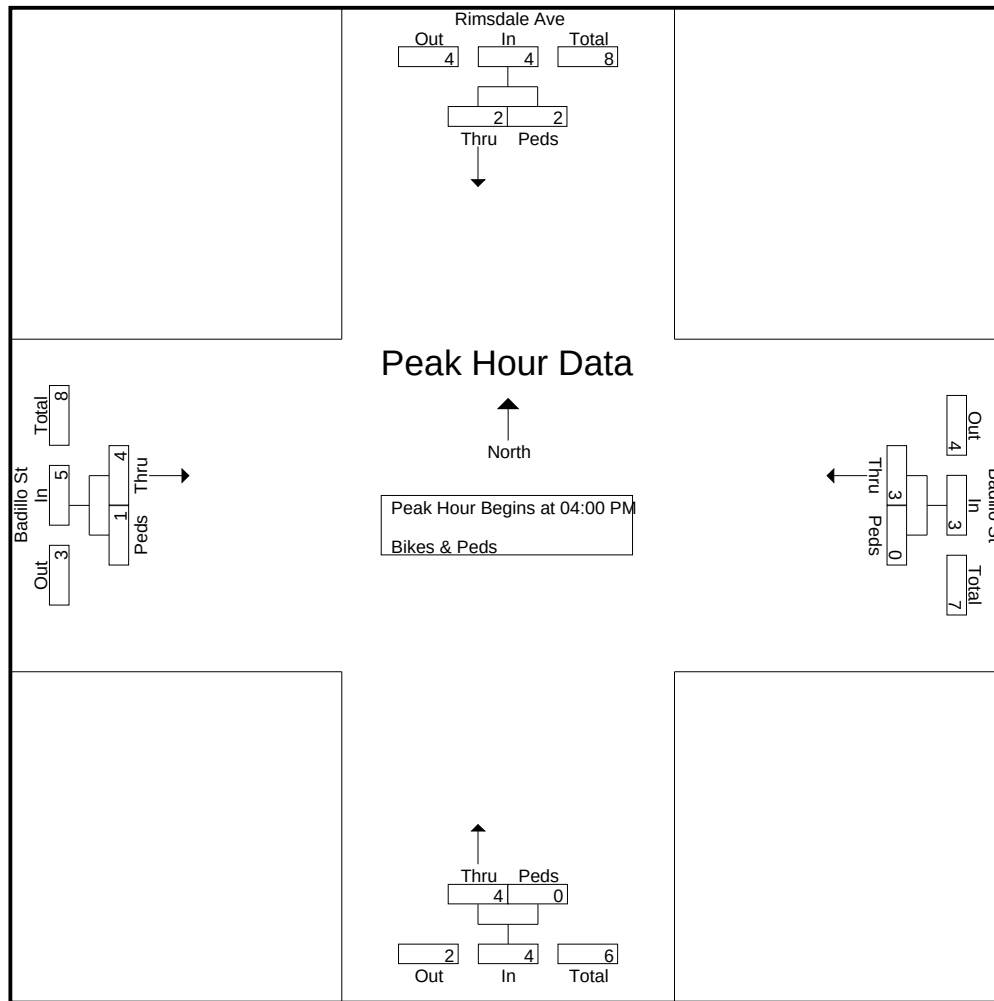


CITY TRAFFIC COUNTERS

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	Rimsdale Ave Southbound			Badillo St Westbound			Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	1	1	1	0	1	1	0	1	1	0	1	4
04:15 PM	2	0	2	2	0	2	0	0	0	0	1	1	5
04:30 PM	0	0	0	0	0	0	1	0	1	1	0	1	2
04:45 PM	0	1	1	0	0	0	2	0	2	2	0	2	5
Total Volume	2	2	4	3	0	3	4	0	4	4	1	5	16
% App. Total	50	50		100	0		100	0		80	20		
PHF	.250	.500	.500	.375	.000	.375	.500	.000	.500	.500	.250	.625	.800



CITY TRAFFIC COUNTERS
WWW.CTCOUNTERS.COM

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Groups Printed- Vehicles

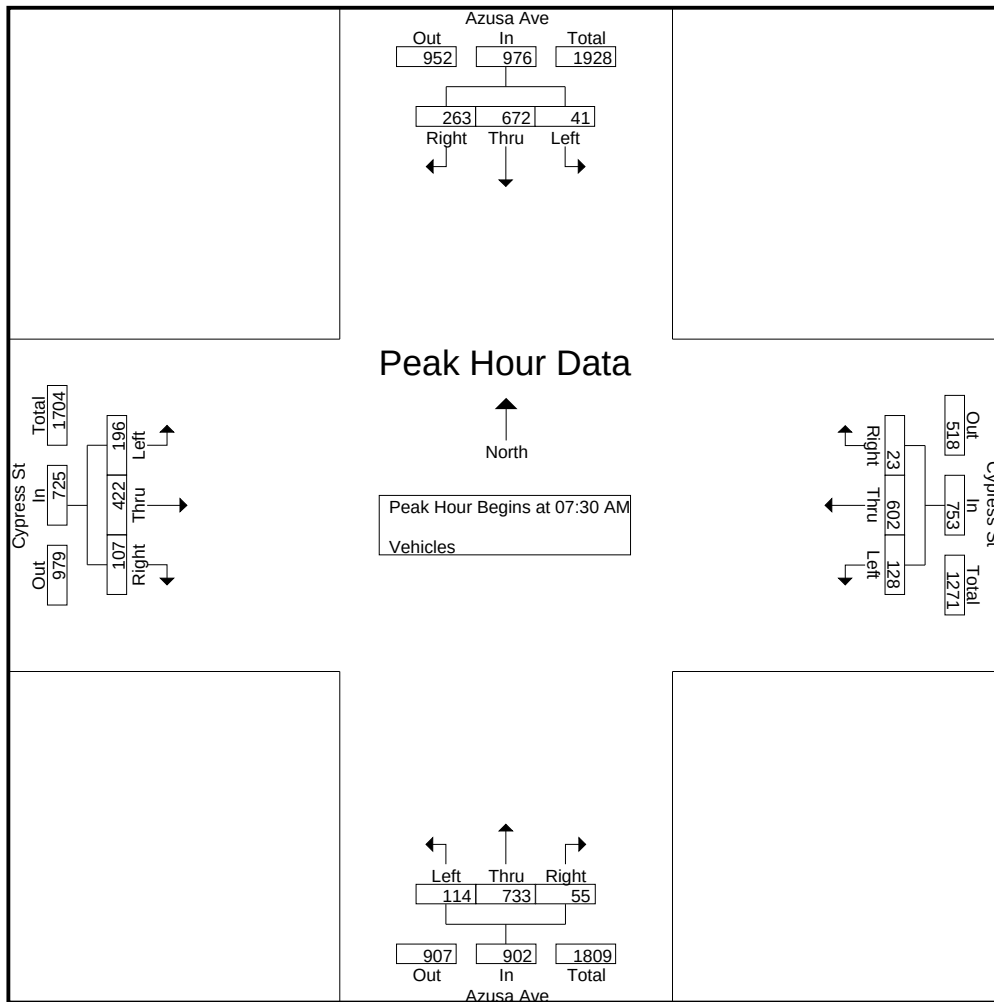
	Azusa Ave Southbound			Cypress St Westbound			Azusa Ave Northbound			Cypress St Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	11	80	17	17	273	5	33	89	2	19	83	7	636
07:15 AM	9	141	53	22	267	7	27	105	4	33	69	17	754
07:30 AM	6	191	98	41	236	2	46	161	10	51	114	30	986
07:45 AM	13	146	64	36	155	6	32	213	13	73	163	46	960
Total	39	558	232	116	931	20	138	568	29	176	429	100	3336
08:00 AM	10	177	62	29	61	7	15	153	17	37	69	16	653
08:15 AM	12	158	39	22	150	8	21	206	15	35	76	15	757
08:30 AM	12	137	22	28	119	4	16	118	12	29	76	16	589
08:45 AM	6	116	26	23	91	7	7	147	18	20	75	18	554
Total	40	588	149	102	421	26	59	624	62	121	296	65	2553
04:00 PM	12	175	30	17	77	7	16	154	18	68	244	28	846
04:15 PM	9	157	35	25	83	14	17	205	28	52	240	25	890
04:30 PM	10	176	38	35	88	10	15	204	30	65	239	28	938
04:45 PM	17	176	42	30	96	9	24	187	33	49	246	19	928
Total	48	684	145	107	344	40	72	750	109	234	969	100	3602
05:00 PM	12	188	50	18	114	8	32	200	32	62	222	15	953
05:15 PM	16	160	33	14	107	3	25	194	34	51	252	16	905
05:30 PM	20	152	38	31	111	5	37	175	26	58	256	21	930
05:45 PM	17	166	44	34	89	20	25	185	31	49	223	24	907
Total	65	666	165	97	421	36	119	754	123	220	953	76	3695
Grand Total	192	2496	691	422	2117	122	388	2696	323	751	2647	341	13186
Apprch %	5.7	73.9	20.4	15.9	79.6	4.6	11.4	79.1	9.5	20.1	70.8	9.1	
Total %	1.5	18.9	5.2	3.2	16.1	0.9	2.9	20.4	2.4	5.7	20.1	2.6	

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	Azusa Ave Southbound				Cypress St Westbound				Azusa Ave Northbound				Cypress St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	6	191	98	295	41	236	2	279	46	161	10	217	51	114	30	195	986
07:45 AM	13	146	64	223	36	155	6	197	32	213	13	258	73	163	46	282	960
08:00 AM	10	177	62	249	29	61	7	97	15	153	17	185	37	69	16	122	653
08:15 AM	12	158	39	209	22	150	8	180	21	206	15	242	35	76	15	126	757
Total Volume	41	672	263	976	128	602	23	753	114	733	55	902	196	422	107	725	3356
% App. Total	4.2	68.9	26.9		17	79.9	3.1		12.6	81.3	6.1		27	58.2	14.8		
PHF	.788	.880	.671	.827	.780	.638	.719	.675	.620	.860	.809	.874	.671	.647	.582	.643	.851

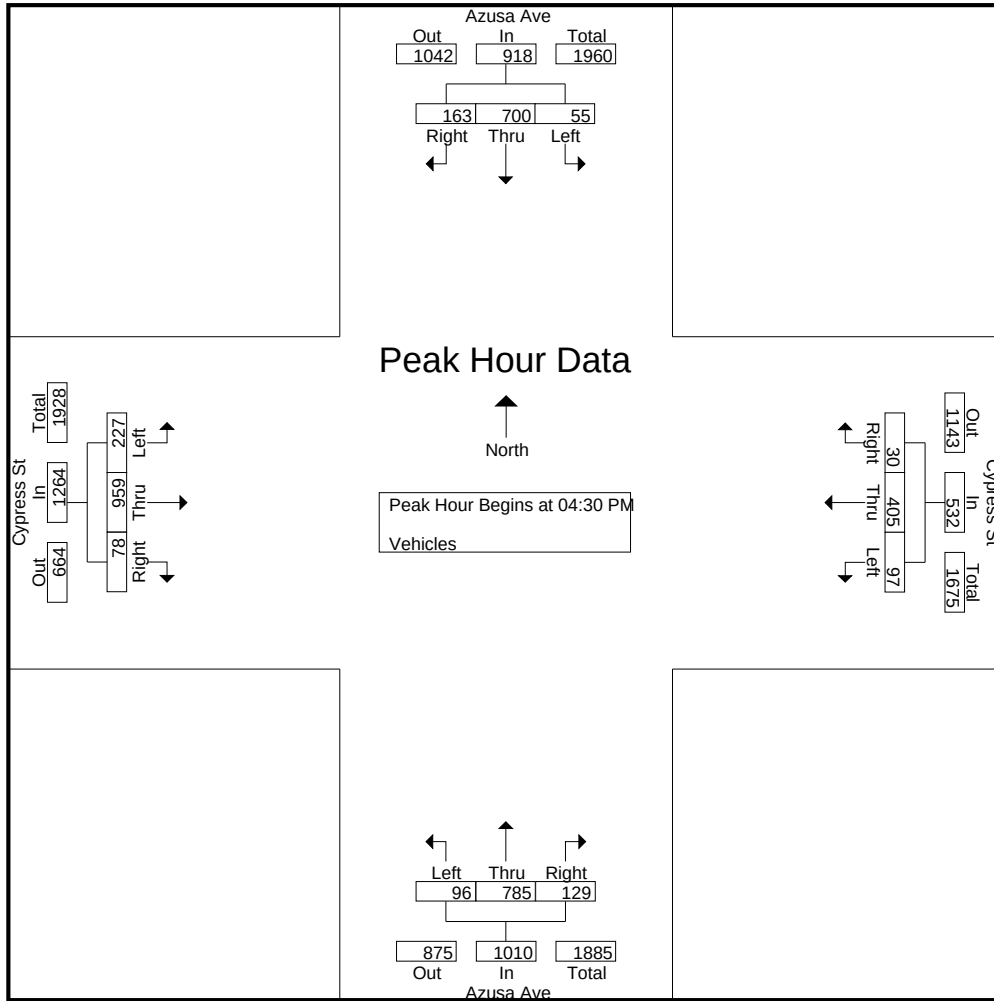


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	Azusa Ave Southbound				Cypress St Westbound				Azusa Ave Northbound				Cypress St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	10	176	38	224	35	88	10	133	15	204	30	249	65	239	28	332	938
04:45 PM	17	176	42	235	30	96	9	135	24	187	33	244	49	246	19	314	928
05:00 PM	12	188	50	250	18	114	8	140	32	200	32	264	62	222	15	299	953
05:15 PM	16	160	33	209	14	107	3	124	25	194	34	253	51	252	16	319	905
Total Volume	55	700	163	918	97	405	30	532	96	785	129	1010	227	959	78	1264	3724
% App. Total	6	76.3	17.8		18.2	76.1	5.6		9.5	77.7	12.8		18	75.9	6.2		
PHF	.809	.931	.815	.918	.693	.888	.750	.950	.750	.962	.949	.956	.873	.951	.696	.952	.977



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Groups Printed- Bikes & Peds

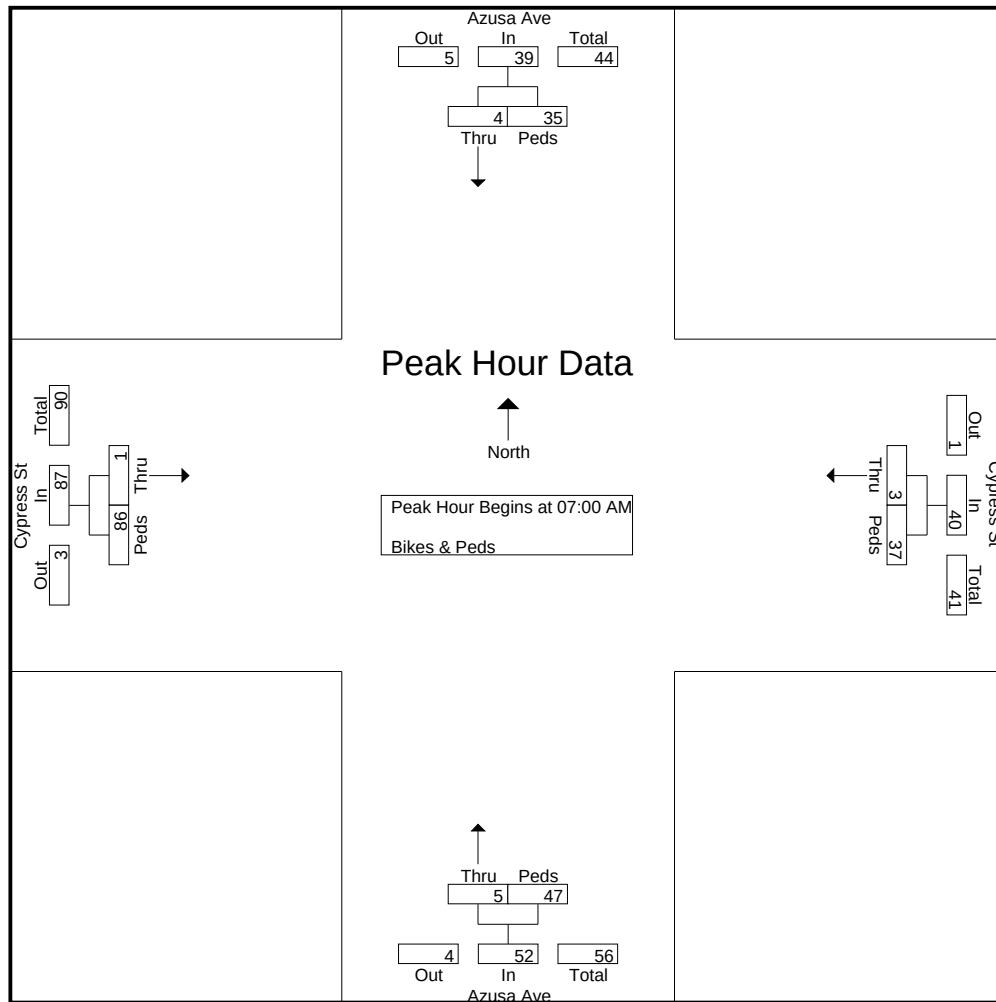
Start Time	Azusa Ave Southbound		Cypress St Westbound		Azusa Ave Northbound		Cypress St Eastbound		Int. Total
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	
07:00 AM	1	0	1	4	0	11	1	1	19
07:15 AM	1	7	1	23	3	13	0	16	64
07:30 AM	1	20	0	8	1	18	0	59	107
07:45 AM	1	8	1	2	1	5	0	10	28
Total	4	35	3	37	5	47	1	86	218
08:00 AM	0	4	2	0	0	0	0	2	8
08:15 AM	0	3	0	4	1	2	0	10	20
08:30 AM	1	7	1	0	2	5	0	9	25
08:45 AM	0	0	0	0	0	0	0	4	4
Total	1	14	3	4	3	7	0	25	57
04:00 PM	0	11	0	2	1	1	1	15	31
04:15 PM	0	9	1	2	0	2	1	12	27
04:30 PM	0	3	2	6	0	3	0	11	25
04:45 PM	0	1	1	2	0	1	0	1	6
Total	0	24	4	12	1	7	2	39	89
05:00 PM	1	4	0	0	0	4	1	4	14
05:15 PM	1	2	1	0	0	1	1	8	14
05:30 PM	0	8	1	6	0	5	0	8	28
05:45 PM	1	0	0	1	1	0	0	1	4
Total	3	14	2	7	1	10	2	21	60
Grand Total	8	87	12	60	10	71	5	171	424
Apprch %	8.4	91.6	16.7	83.3	12.3	87.7	2.8	97.2	
Total %	1.9	20.5	2.8	14.2	2.4	16.7	1.2	40.3	

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	Azusa Ave Southbound			Cypress St Westbound			Azusa Ave Northbound			Cypress St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	1	0	1	1	4	5	0	11	11	1	1	2	19
07:15 AM	1	7	8	1	23	24	3	13	16	0	16	16	64
07:30 AM	1	20	21	0	8	8	1	18	19	0	59	59	107
07:45 AM	1	8	9	1	2	3	1	5	6	0	10	10	28
Total Volume	4	35	39	3	37	40	5	47	52	1	86	87	218
% App. Total	10.3	89.7		7.5	92.5		9.6	90.4		1.1	98.9		
PHF	1.00	.438	.464	.750	.402	.417	.417	.653	.684	.250	.364	.369	.509

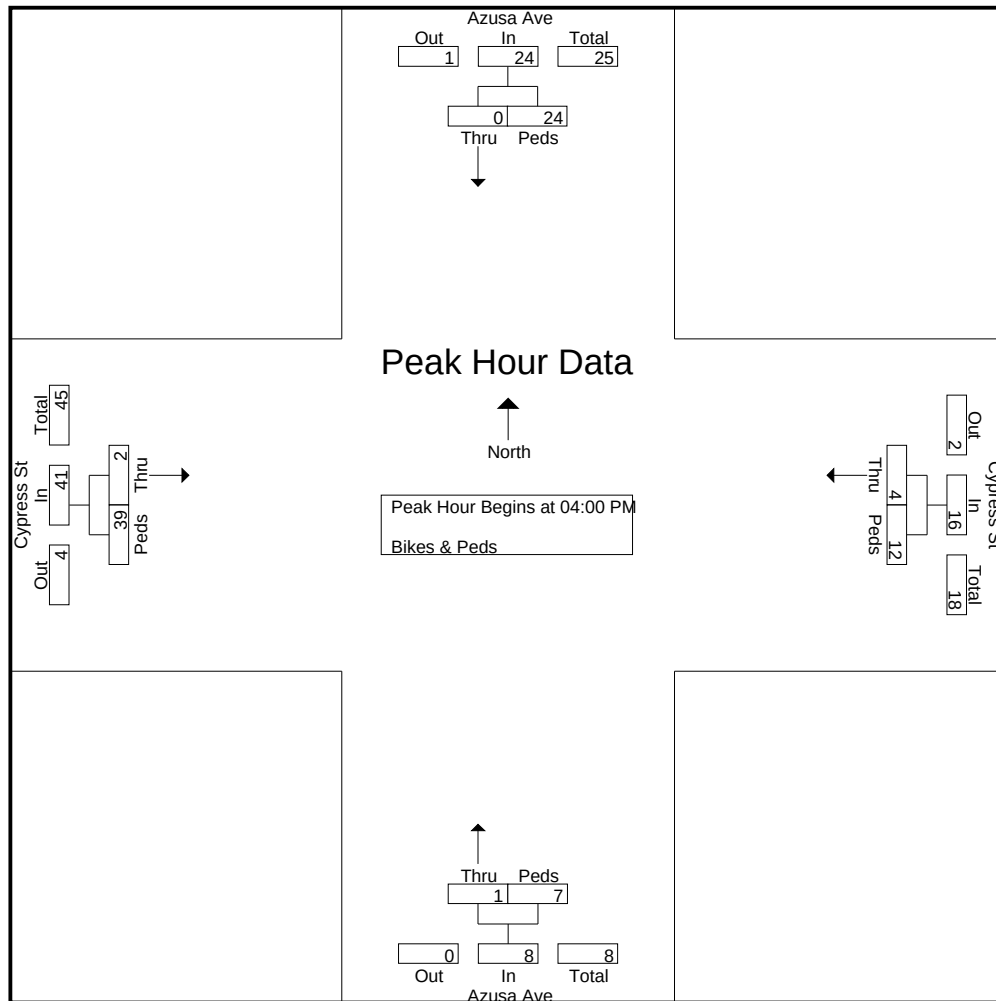


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	Azusa Ave Southbound			Cypress St Westbound			Azusa Ave Northbound			Cypress St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	11	11	0	2	2	1	1	2	1	15	16	31
04:15 PM	0	9	9	1	2	3	0	2	2	1	12	13	27
04:30 PM	0	3	3	2	6	8	0	3	3	0	11	11	25
04:45 PM	0	1	1	1	2	3	0	1	1	0	1	1	6
Total Volume	0	24	24	4	12	16	1	7	8	2	39	41	89
% App. Total	0	100		25	75		12.5	87.5		4.9	95.1		
PHF	.000	.545	.545	.500	.500	.500	.250	.583	.667	.500	.650	.641	.718



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Groups Printed- Vehicles

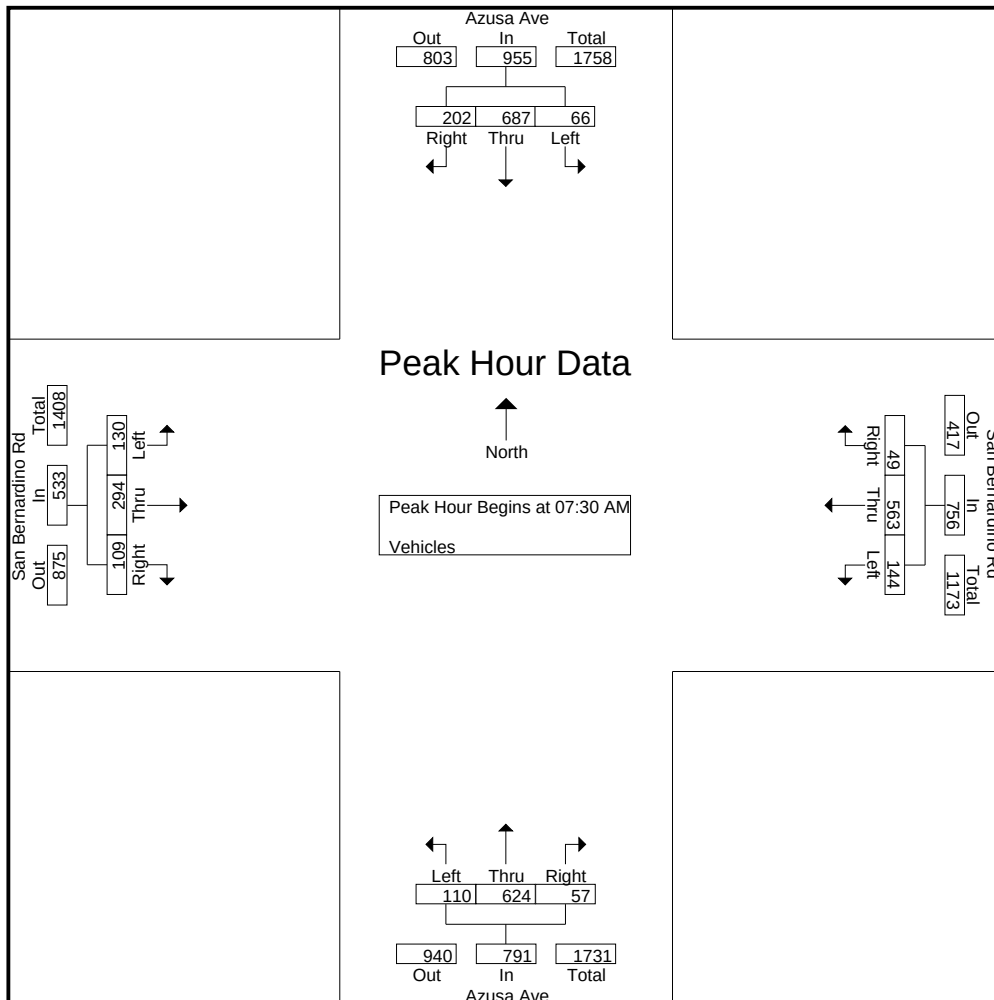
	Azusa Ave Southbound			San Bernardino Rd Westbound			Azusa Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	5	139	24	31	169	9	35	98	4	19	33	17	583
07:15 AM	12	161	30	34	136	10	27	112	7	24	40	33	626
07:30 AM	20	163	87	34	195	11	30	133	10	27	75	27	812
07:45 AM	18	208	54	46	130	12	26	215	14	40	80	24	867
Total	55	671	195	145	630	42	118	558	35	110	228	101	2888
08:00 AM	8	139	29	33	145	18	35	154	22	27	84	31	725
08:15 AM	20	177	32	31	93	8	19	122	11	36	55	27	631
08:30 AM	21	142	20	23	74	13	35	140	10	25	55	22	580
08:45 AM	12	157	23	22	55	10	21	116	15	17	62	16	526
Total	61	615	104	109	367	49	110	532	58	105	256	96	2462
04:00 PM	34	171	40	26	60	19	31	155	11	45	120	34	746
04:15 PM	22	168	31	20	63	10	27	137	12	41	128	27	686
04:30 PM	28	184	38	21	59	15	34	154	17	27	115	25	717
04:45 PM	34	190	30	26	78	17	31	154	10	43	128	29	770
Total	118	713	139	93	260	61	123	600	50	156	491	115	2919
05:00 PM	35	174	30	26	67	18	34	179	17	50	139	27	796
05:15 PM	33	192	22	33	63	21	24	173	19	53	157	30	820
05:30 PM	28	177	29	35	73	12	34	185	19	48	144	30	814
05:45 PM	40	181	34	28	77	12	20	164	14	48	151	26	795
Total	136	724	115	122	280	63	112	701	69	199	591	113	3225
Grand Total	370	2723	553	469	1537	215	463	2391	212	570	1566	425	11494
Apprch %	10.1	74.7	15.2	21.1	69.2	9.7	15.1	78	6.9	22.3	61.1	16.6	
Total %	3.2	23.7	4.8	4.1	13.4	1.9	4	20.8	1.8	5	13.6	3.7	

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	Azusa Ave Southbound				San Bernardino Rd Westbound				Azusa Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	20	163	87	270	34	195	11	240	30	133	10	173	27	75	27	129	812
07:45 AM	18	208	54	280	46	130	12	188	26	215	14	255	40	80	24	144	867
08:00 AM	8	139	29	176	33	145	18	196	35	154	22	211	27	84	31	142	725
08:15 AM	20	177	32	229	31	93	8	132	19	122	11	152	36	55	27	118	631
Total Volume	66	687	202	955	144	563	49	756	110	624	57	791	130	294	109	533	3035
% App. Total	6.9	71.9	21.2		19	74.5	6.5		13.9	78.9	7.2		24.4	55.2	20.5		
PHF	.825	.826	.580	.853	.783	.722	.681	.788	.786	.726	.648	.775	.813	.875	.879	.925	.875

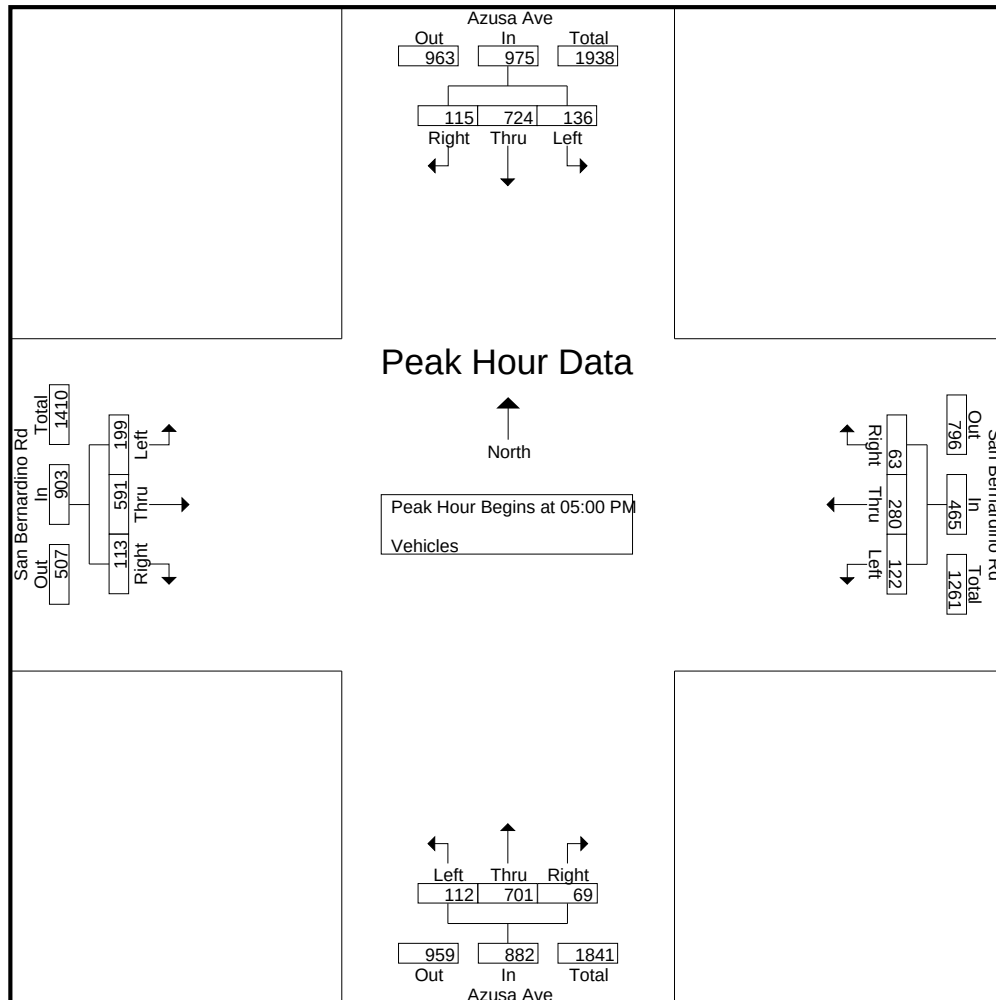


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	Azusa Ave Southbound				San Bernardino Rd Westbound				Azusa Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	35	174	30	239	26	67	18	111	34	179	17	230	50	139	27	216	796
05:15 PM	33	192	22	247	33	63	21	117	24	173	19	216	53	157	30	240	820
05:30 PM	28	177	29	234	35	73	12	120	34	185	19	238	48	144	30	222	814
05:45 PM	40	181	34	255	28	77	12	117	20	164	14	198	48	151	26	225	795
Total Volume	136	724	115	975	122	280	63	465	112	701	69	882	199	591	113	903	3225
% App. Total	13.9	74.3	11.8		26.2	60.2	13.5		12.7	79.5	7.8		22	65.4	12.5		
PHF	.850	.943	.846	.956	.871	.909	.750	.969	.824	.947	.908	.926	.939	.941	.942	.941	.983



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Groups Printed- Bikes & Peds

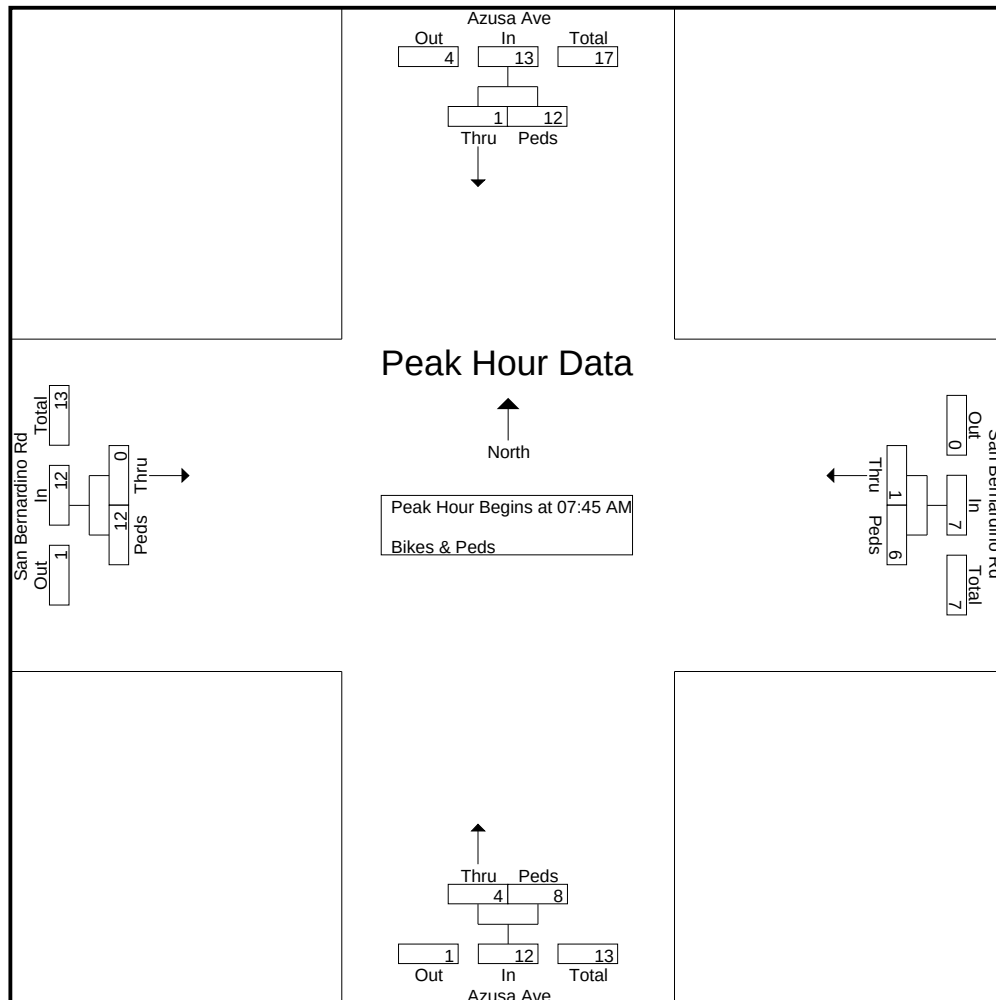
Start Time	Azusa Ave Southbound		San Bernardino Rd Westbound		Azusa Ave Northbound		San Bernardino Rd Eastbound		Int. Total
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	
07:00 AM	0	2	0	1	0	0	0	3	6
07:15 AM	0	1	0	0	0	1	0	4	6
07:30 AM	0	1	1	0	0	1	1	4	8
07:45 AM	0	2	0	1	2	1	0	4	10
Total	0	6	1	2	2	3	1	15	30
08:00 AM	1	4	1	4	0	3	0	1	14
08:15 AM	0	3	0	1	0	2	0	4	10
08:30 AM	0	3	0	0	2	2	0	3	10
08:45 AM	0	0	0	1	0	2	1	1	5
Total	1	10	1	6	2	9	1	9	39
04:00 PM	0	2	0	3	2	0	0	6	13
04:15 PM	1	4	0	1	2	1	2	7	18
04:30 PM	2	6	0	4	4	2	1	8	27
04:45 PM	1	1	1	2	1	1	1	2	10
Total	4	13	1	10	9	4	4	23	68
05:00 PM	1	7	2	4	1	0	0	11	26
05:15 PM	2	0	2	2	1	2	1	6	16
05:30 PM	0	1	0	3	0	3	0	8	15
05:45 PM	0	5	1	2	0	1	0	1	10
Total	3	13	5	11	2	6	1	26	67
Grand Total	8	42	8	29	15	22	7	73	204
Apprch %	16	84	21.6	78.4	40.5	59.5	8.8	91.2	
Total %	3.9	20.6	3.9	14.2	7.4	10.8	3.4	35.8	

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	Azusa Ave Southbound			San Bernardino Rd Westbound			Azusa Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	2	2	0	1	1	2	1	3	0	4	4	10
08:00 AM	1	4	5	1	4	5	0	3	3	0	1	1	14
08:15 AM	0	3	3	0	1	1	0	2	2	0	4	4	10
08:30 AM	0	3	3	0	0	0	2	2	4	0	3	3	10
Total Volume	1	12	13	1	6	7	4	8	12	0	12	12	44
% App. Total	7.7	92.3		14.3	85.7		33.3	66.7		0	100		
PHF	.250	.750	.650	.250	.375	.350	.500	.667	.750	.000	.750	.750	.786

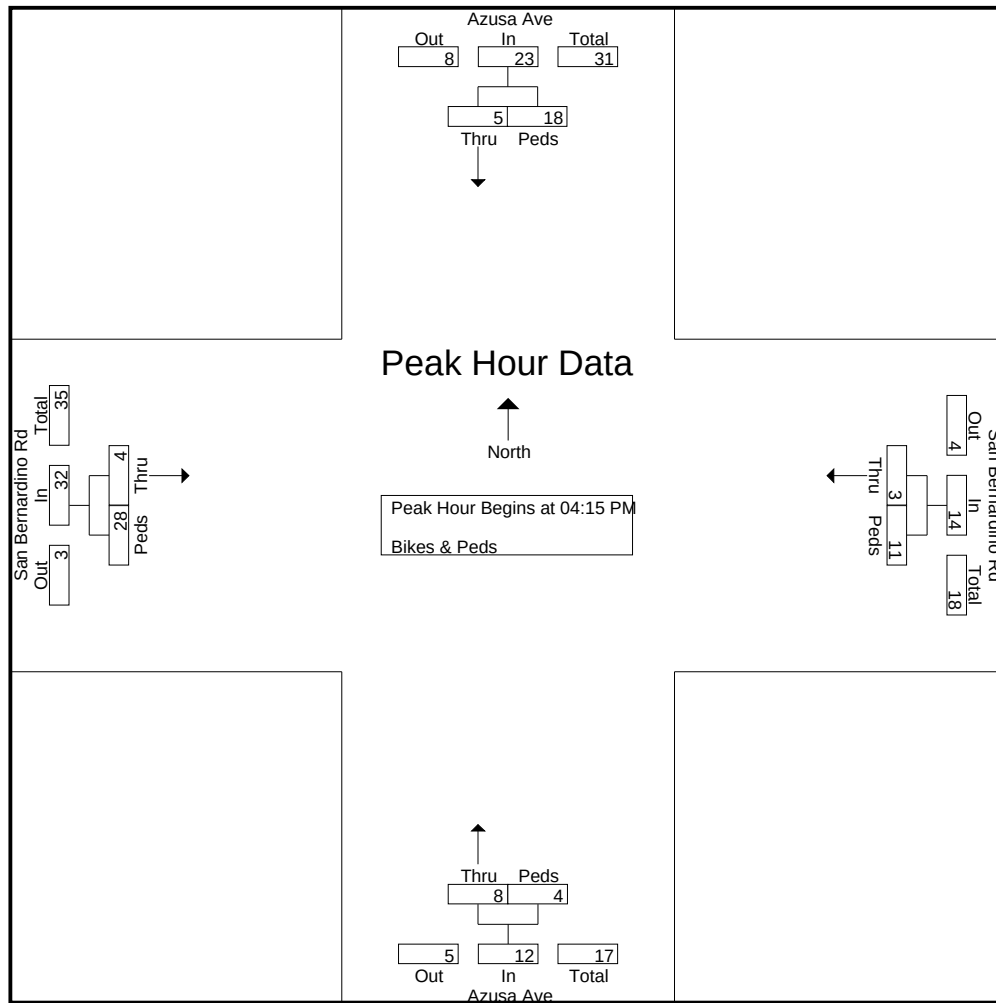


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	Azusa Ave Southbound			San Bernardino Rd Westbound			Azusa Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	1	4	5	0	1	1	2	1	3	2	7	9	18
04:30 PM	2	6	8	0	4	4	4	2	6	1	8	9	27
04:45 PM	1	1	2	1	2	3	1	1	2	1	2	3	10
05:00 PM	1	7	8	2	4	6	1	0	1	0	11	11	26
Total Volume	5	18	23	3	11	14	8	4	12	4	28	32	81
% App. Total	21.7	78.3		21.4	78.6		66.7	33.3		12.5	87.5		
PHF	.625	.643	.719	.375	.688	.583	.500	.500	.500	.500	.636	.727	.750



CITY TRAFFIC COUNTERS
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Groups Printed- Vehicles

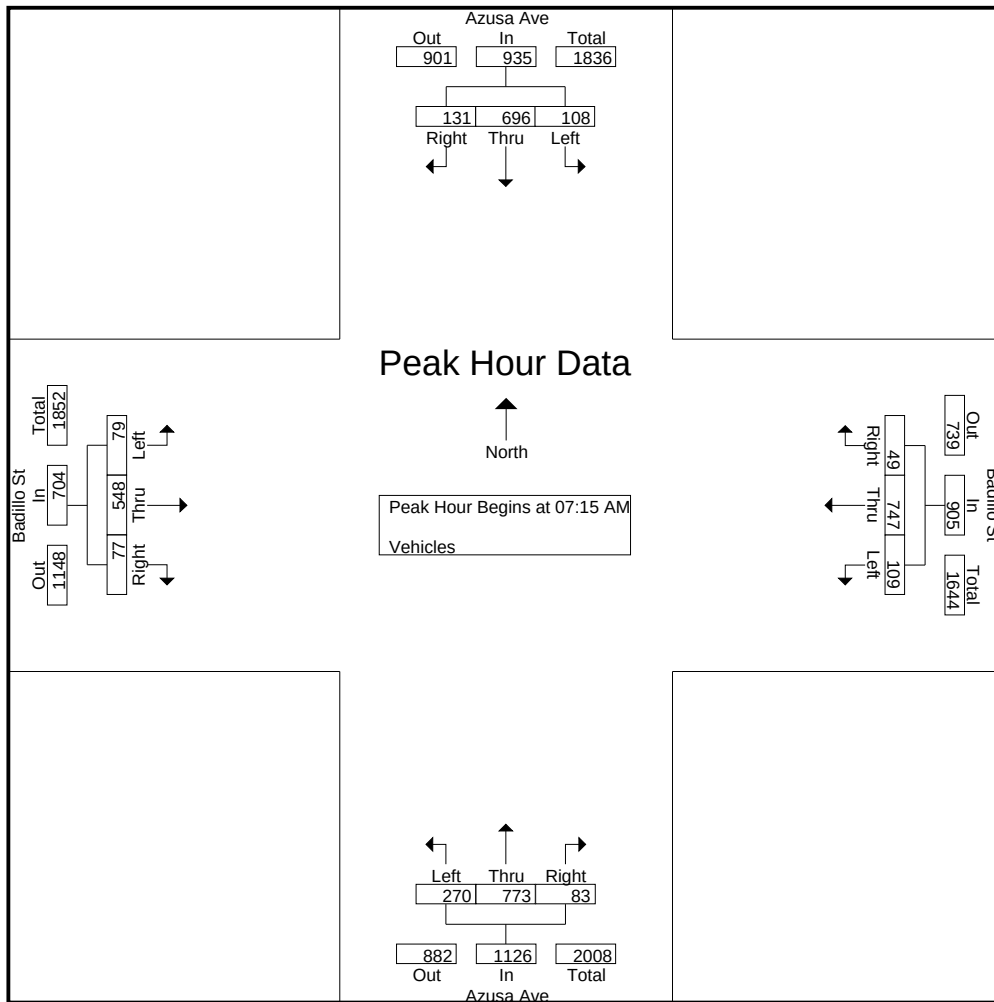
	Azusa Ave Southbound			Badillo St Westbound			Azusa Ave Northbound			Badillo St Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	13	156	33	25	227	9	68	126	12	7	73	19	768
07:15 AM	16	156	32	24	239	8	45	144	14	6	108	21	813
07:30 AM	25	175	32	30	168	7	79	190	26	16	152	25	925
07:45 AM	19	221	40	33	180	27	77	239	19	34	142	20	1051
Total	73	708	137	112	814	51	269	699	71	63	475	85	3557
08:00 AM	48	144	27	22	160	7	69	200	24	23	146	11	881
08:15 AM	22	154	26	25	150	8	40	152	22	16	130	24	769
08:30 AM	30	170	21	16	123	16	43	181	25	7	89	41	762
08:45 AM	18	139	18	21	122	7	32	122	29	10	139	27	684
Total	118	607	92	84	555	38	184	655	100	56	504	103	3096
04:00 PM	37	195	18	31	120	13	27	180	33	34	197	36	921
04:15 PM	28	193	19	39	107	14	41	181	26	35	203	30	916
04:30 PM	36	177	13	29	111	12	39	157	18	24	208	43	867
04:45 PM	36	194	17	50	110	10	27	169	13	33	202	24	885
Total	137	759	67	149	448	49	134	687	90	126	810	133	3589
05:00 PM	31	214	19	38	125	18	45	194	17	41	225	23	990
05:15 PM	26	234	21	53	130	6	19	196	17	35	198	29	964
05:30 PM	34	198	11	26	128	12	33	216	10	23	238	38	967
05:45 PM	21	225	18	39	110	12	31	186	18	27	209	25	921
Total	112	871	69	156	493	48	128	792	62	126	870	115	3842
Grand Total	440	2945	365	501	2310	186	715	2833	323	371	2659	436	14084
Apprch %	11.7	78.5	9.7	16.7	77.1	6.2	18.5	73.2	8.3	10.7	76.7	12.6	
Total %	3.1	20.9	2.6	3.6	16.4	1.3	5.1	20.1	2.3	2.6	18.9	3.1	

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	Azusa Ave Southbound				Badillo St Westbound				Azusa Ave Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	16	156	32	204	24	239	8	271	45	144	14	203	6	108	21	135	813
07:30 AM	25	175	32	232	30	168	7	205	79	190	26	295	16	152	25	193	925
07:45 AM	19	221	40	280	33	180	27	240	77	239	19	335	34	142	20	196	1051
08:00 AM	48	144	27	219	22	160	7	189	69	200	24	293	23	146	11	180	881
Total Volume	108	696	131	935	109	747	49	905	270	773	83	1126	79	548	77	704	3670
% App. Total	11.6	74.4	14		12	82.5	5.4		24	68.7	7.4		11.2	77.8	10.9		
PHF	.563	.787	.819	.835	.826	.781	.454	.835	.854	.809	.798	.840	.581	.901	.770	.898	.873

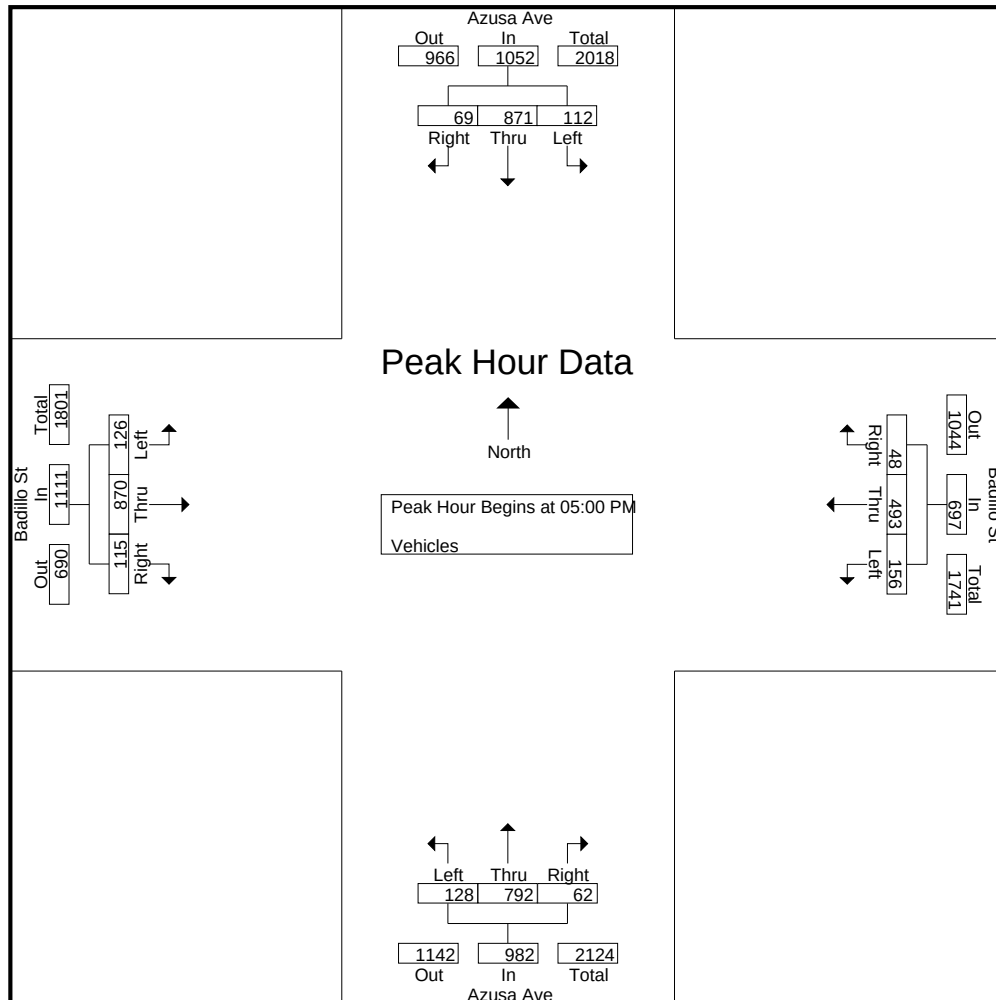


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	Azusa Ave Southbound				Badillo St Westbound				Azusa Ave Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	31	214	19	264	38	125	18	181	45	194	17	256	41	225	23	289	990
05:15 PM	26	234	21	281	53	130	6	189	19	196	17	232	35	198	29	262	964
05:30 PM	34	198	11	243	26	128	12	166	33	216	10	259	23	238	38	299	967
05:45 PM	21	225	18	264	39	110	12	161	31	186	18	235	27	209	25	261	921
Total Volume	112	871	69	1052	156	493	48	697	128	792	62	982	126	870	115	1111	3842
% App. Total	10.6	82.8	6.6		22.4	70.7	6.9		13	80.7	6.3		11.3	78.3	10.4		
PHF	.824	.931	.821	.936	.736	.948	.667	.922	.711	.917	.861	.948	.768	.914	.757	.929	.970



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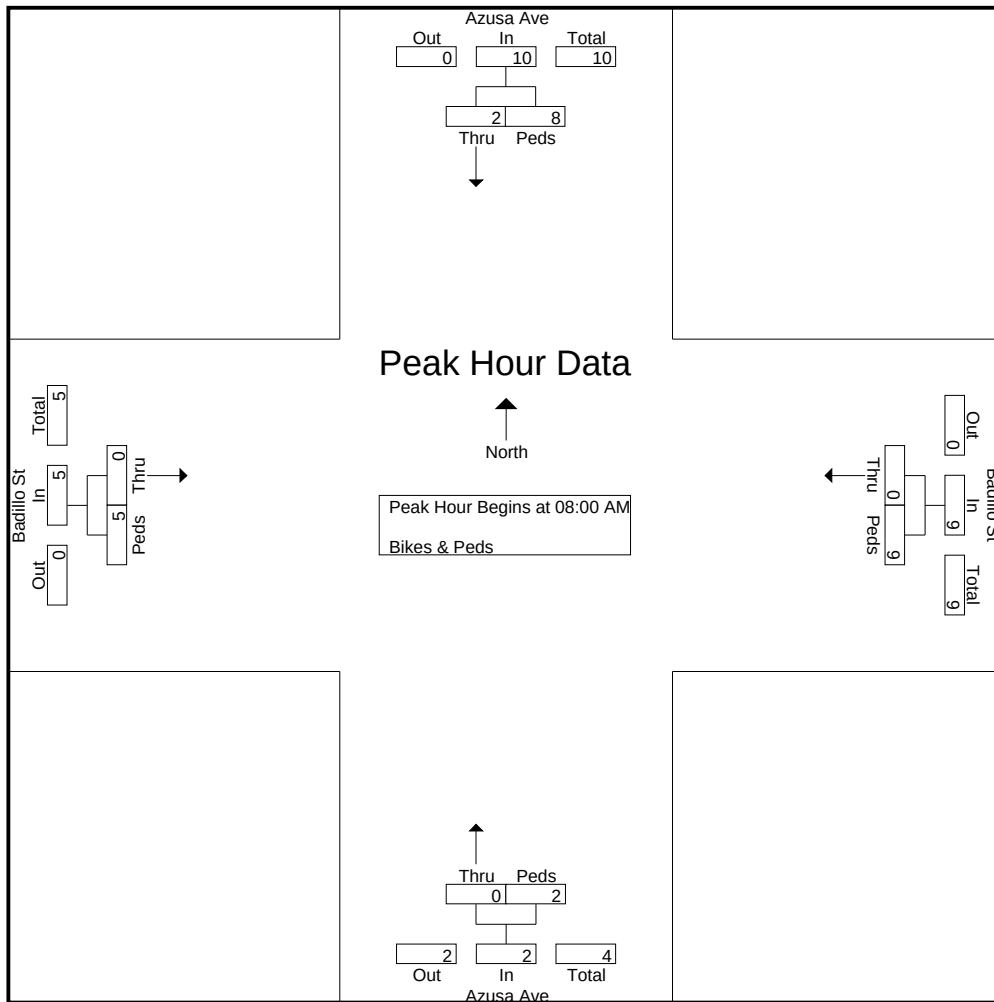
Groups Printed- Bikes & Peds

Start Time	Azusa Ave Southbound		Badillo St Westbound		Azusa Ave Northbound		Badillo St Eastbound		Int. Total
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	
07:00 AM	1	3	0	2	1	0	0	1	8
07:15 AM	0	0	0	1	1	3	0	1	6
07:30 AM	0	3	0	0	0	2	1	0	6
07:45 AM	0	1	0	3	0	0	0	1	5
Total	1	7	0	6	2	5	1	3	25
08:00 AM	1	0	0	2	0	0	0	0	3
08:15 AM	0	1	0	3	0	1	0	1	6
08:30 AM	0	1	0	3	0	1	0	2	7
08:45 AM	1	6	0	1	0	0	0	2	10
Total	2	8	0	9	0	2	0	5	26
04:00 PM	0	6	0	6	0	2	0	1	15
04:15 PM	0	0	0	3	2	1	0	3	9
04:30 PM	1	0	2	2	1	1	0	1	8
04:45 PM	0	0	2	4	0	0	1	2	9
Total	1	6	4	15	3	4	1	7	41
05:00 PM	1	0	1	0	1	1	2	2	8
05:15 PM	0	0	1	2	0	0	0	5	8
05:30 PM	1	2	0	2	0	1	0	3	9
05:45 PM	1	3	0	8	0	0	0	0	12
Total	3	5	2	12	1	2	2	10	37
Grand Total	7	26	6	42	6	13	4	25	129
Apprch %	21.2	78.8	12.5	87.5	31.6	68.4	13.8	86.2	
Total %	5.4	20.2	4.7	32.6	4.7	10.1	3.1	19.4	

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	Azusa Ave Southbound			Badillo St Westbound			Azusa Ave Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	1	0	1	0	2	2	0	0	0	0	0	0	3
08:15 AM	0	1	1	0	3	3	0	1	1	0	1	1	6
08:30 AM	0	1	1	0	3	3	0	1	1	0	2	2	7
08:45 AM	1	6	7	0	1	1	0	0	0	0	2	2	10
Total Volume	2	8	10	0	9	9	0	2	2	0	5	5	26
% App. Total	20	80		0	100		0	100		0	100		
PHF	.500	.333	.357	.000	.750	.750	.000	.500	.500	.000	.625	.625	.650

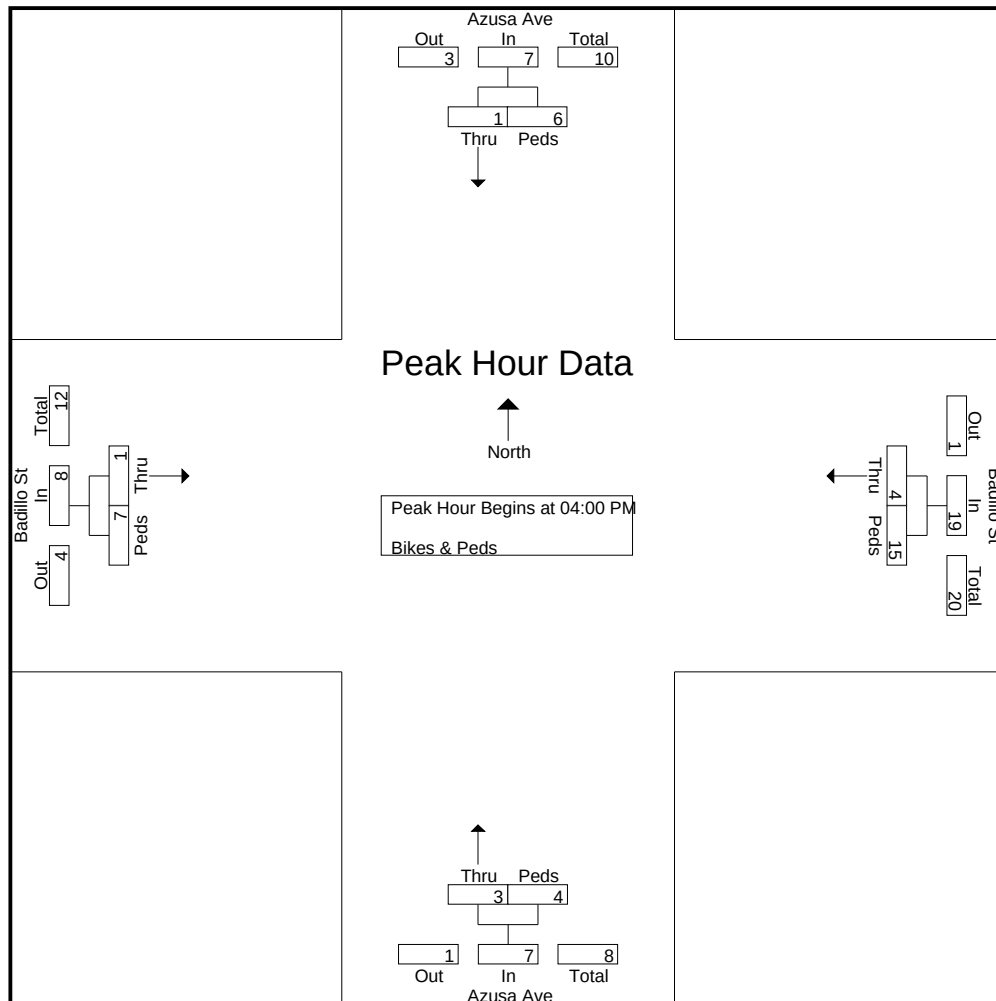


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	Azusa Ave Southbound			Badillo St Westbound			Azusa Ave Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	6	6	0	6	6	0	2	2	0	1	1	15
04:15 PM	0	0	0	0	3	3	2	1	3	0	3	3	9
04:30 PM	1	0	1	2	2	4	1	1	2	0	1	1	8
04:45 PM	0	0	0	2	4	6	0	0	0	1	2	3	9
Total Volume	1	6	7	4	15	19	3	4	7	1	7	8	41
% App. Total	14.3	85.7		21.1	78.9		42.9	57.1		12.5	87.5		
PHF	.250	.250	.292	.500	.625	.792	.375	.500	.583	.250	.583	.667	.683



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Groups Printed- Vehicles

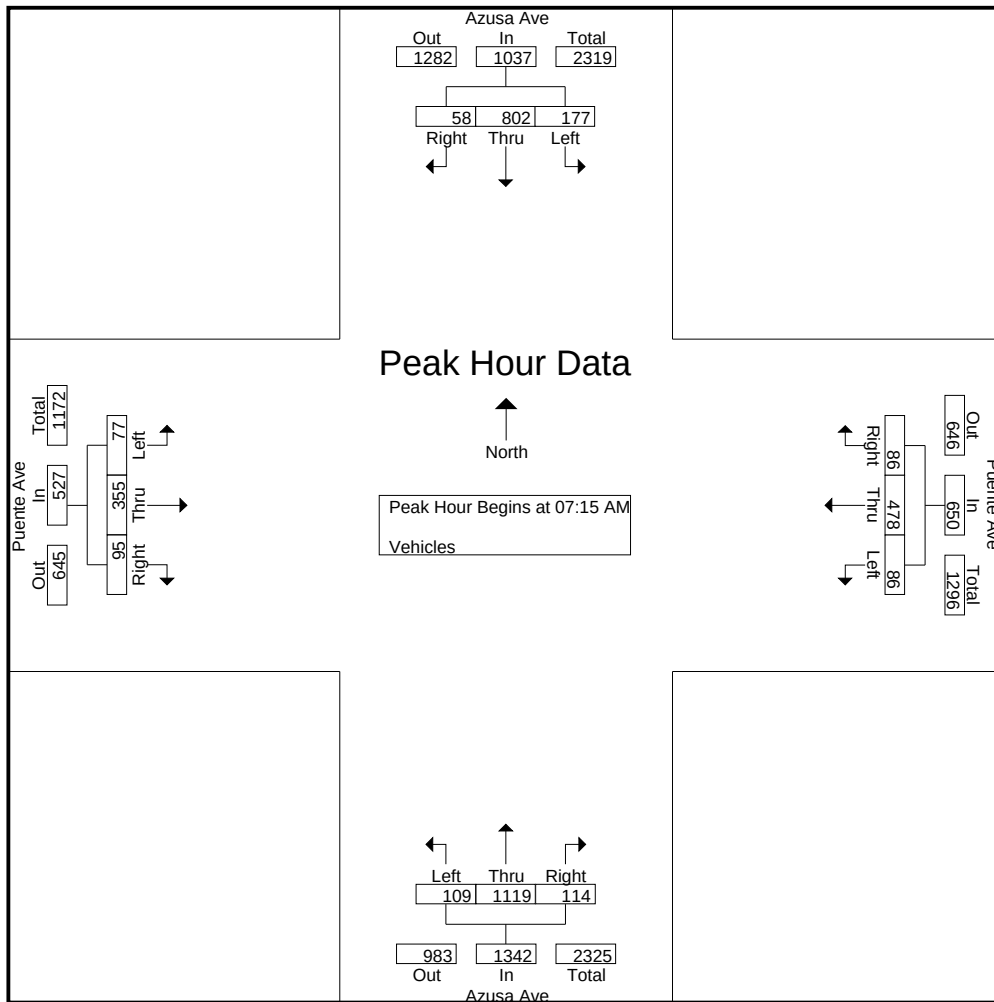
	Azusa Ave Southbound			Puente Ave Westbound			Azusa Ave Northbound			Puente Ave Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	11	181	17	12	90	4	26	175	10	9	41	12	588
07:15 AM	30	178	7	9	132	9	27	201	18	9	87	16	723
07:30 AM	59	190	28	19	103	28	23	301	64	8	116	26	965
07:45 AM	80	194	8	38	162	32	33	324	21	35	100	31	1058
Total	180	743	60	78	487	73	109	1001	113	61	344	85	3334
08:00 AM	8	240	15	20	81	17	26	293	11	25	52	22	810
08:15 AM	12	224	9	14	81	15	11	193	16	30	43	12	660
08:30 AM	14	210	4	11	52	15	10	203	13	23	51	16	622
08:45 AM	6	195	8	12	49	11	8	195	17	32	44	16	593
Total	40	869	36	57	263	58	55	884	57	110	190	66	2685
04:00 PM	33	261	6	13	61	15	14	184	18	29	138	31	803
04:15 PM	22	293	7	15	52	13	15	240	21	43	95	36	852
04:30 PM	40	256	13	19	70	12	18	179	20	33	137	28	825
04:45 PM	28	323	11	18	54	9	11	188	14	39	139	28	862
Total	123	1133	37	65	237	49	58	791	73	144	509	123	3342
05:00 PM	20	285	9	25	74	11	17	194	13	40	134	29	851
05:15 PM	27	307	6	22	63	9	28	203	24	37	144	23	893
05:30 PM	16	258	10	17	43	14	20	236	21	42	123	34	834
05:45 PM	33	274	4	16	54	9	21	220	14	39	118	43	845
Total	96	1124	29	80	234	43	86	853	72	158	519	129	3423
Grand Total	439	3869	162	280	1221	223	308	3529	315	473	1562	403	12784
Apprch %	9.8	86.6	3.6	16.2	70.8	12.9	7.4	85	7.6	19.4	64.1	16.5	
Total %	3.4	30.3	1.3	2.2	9.6	1.7	2.4	27.6	2.5	3.7	12.2	3.2	

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	Azusa Ave Southbound				Puente Ave Westbound				Azusa Ave Northbound				Puente Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	30	178	7	215	9	132	9	150	27	201	18	246	9	87	16	112	723
07:30 AM	59	190	28	277	19	103	28	150	23	301	64	388	8	116	26	150	965
07:45 AM	80	194	8	282	38	162	32	232	33	324	21	378	35	100	31	166	1058
08:00 AM	8	240	15	263	20	81	17	118	26	293	11	330	25	52	22	99	810
Total Volume	177	802	58	1037	86	478	86	650	109	1119	114	1342	77	355	95	527	3556
% App. Total	17.1	77.3	5.6		13.2	73.5	13.2		8.1	83.4	8.5		14.6	67.4	18		
PHF	.553	.835	.518	.919	.566	.738	.672	.700	.826	.863	.445	.865	.550	.765	.766	.794	.840

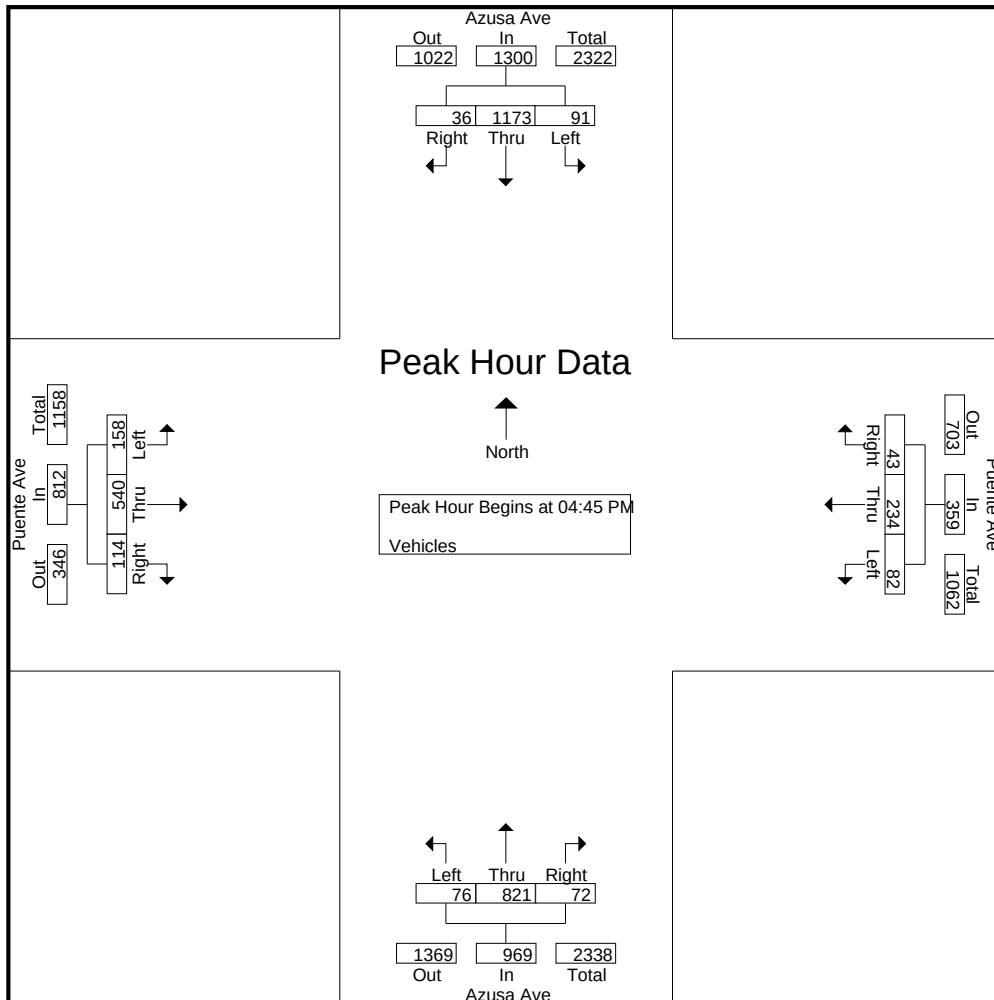


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	Azusa Ave Southbound				Puente Ave Westbound				Azusa Ave Northbound				Puente Ave Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	28	323	11	362	18	54	9	81	11	188	14	213	39	139	28	206	862
05:00 PM	20	285	9	314	25	74	11	110	17	194	13	224	40	134	29	203	851
05:15 PM	27	307	6	340	22	63	9	94	28	203	24	255	37	144	23	204	893
05:30 PM	16	258	10	284	17	43	14	74	20	236	21	277	42	123	34	199	834
Total Volume	91	1173	36	1300	82	234	43	359	76	821	72	969	158	540	114	812	3440
% App. Total	7	90.2	2.8		22.8	65.2	12		7.8	84.7	7.4		19.5	66.5	14		
PHF	.813	.908	.818	.898	.820	.791	.768	.816	.679	.870	.750	.875	.940	.938	.838	.985	.963



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Groups Printed- Bikes & Peds

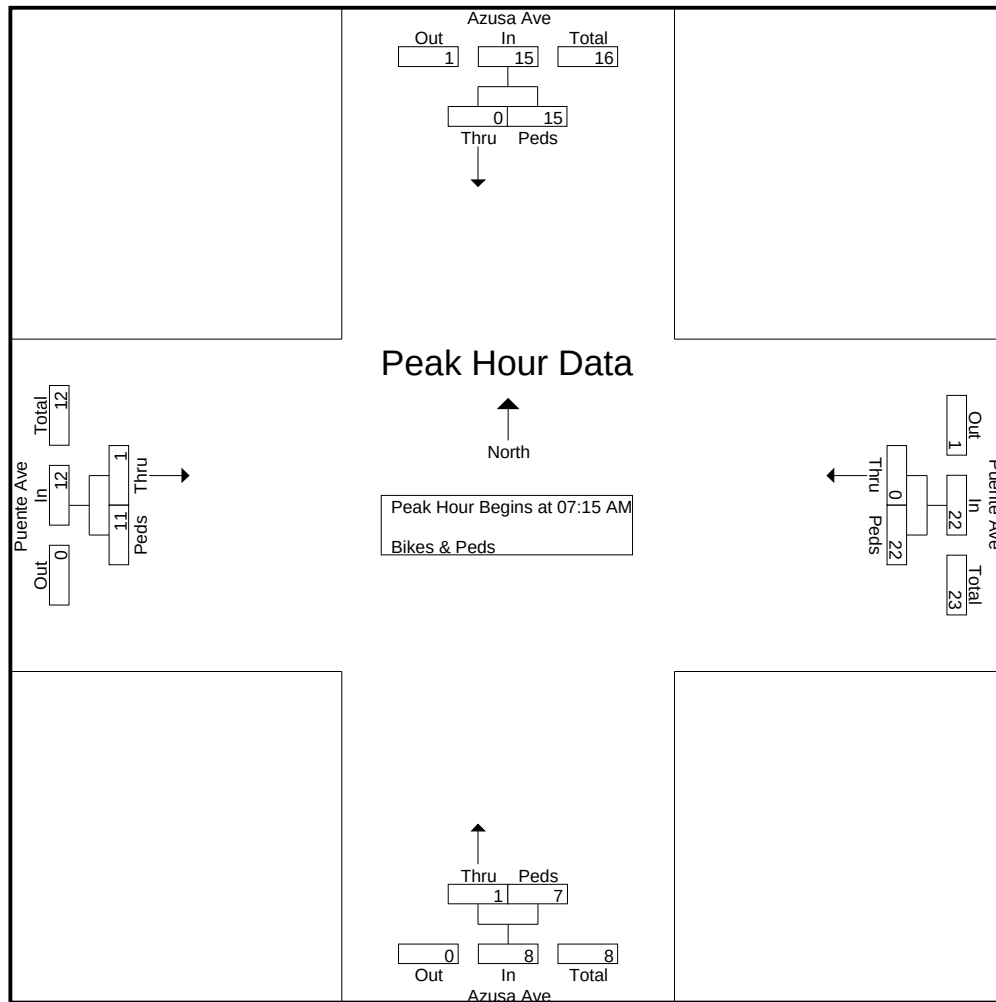
	Azusa Ave Southbound		Puente Ave Westbound		Azusa Ave Northbound		Puente Ave Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	0	6	0	0	0	1	0	2	9
07:15 AM	0	4	0	4	0	0	0	2	10
07:30 AM	0	4	0	10	1	5	1	2	23
07:45 AM	0	3	0	2	0	0	0	5	10
Total	0	17	0	16	1	6	1	11	52
08:00 AM	0	4	0	6	0	2	0	2	14
08:15 AM	0	2	0	1	0	0	0	7	10
08:30 AM	0	0	0	4	0	1	0	1	6
08:45 AM	0	3	0	0	0	2	0	4	9
Total	0	9	0	11	0	5	0	14	39
04:00 PM	0	1	0	0	0	1	0	1	3
04:15 PM	0	0	0	1	0	3	0	3	7
04:30 PM	0	4	0	1	0	3	2	0	10
04:45 PM	2	4	1	0	0	0	5	3	15
Total	2	9	1	2	0	7	7	7	35
05:00 PM	0	0	1	3	0	4	0	6	14
05:15 PM	0	2	0	6	2	1	1	1	13
05:30 PM	1	1	0	0	1	1	0	4	8
05:45 PM	1	4	0	2	0	0	0	1	8
Total	2	7	1	11	3	6	1	12	43
Grand Total	4	42	2	40	4	24	9	44	169
Apprch %	8.7	91.3	4.8	95.2	14.3	85.7	17	83	
Total %	2.4	24.9	1.2	23.7	2.4	14.2	5.3	26	

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	Azusa Ave Southbound			Puente Ave Westbound			Azusa Ave Northbound			Puente Ave Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	4	4	0	4	4	0	0	0	0	2	2	10
07:30 AM	0	4	4	0	10	10	1	5	6	1	2	3	23
07:45 AM	0	3	3	0	2	2	0	0	0	0	5	5	10
08:00 AM	0	4	4	0	6	6	0	2	2	0	2	2	14
Total Volume	0	15	15	0	22	22	1	7	8	1	11	12	57
% App. Total	0	100		0	100		12.5	87.5		8.3	91.7		
PHF	.000	.938	.938	.000	.550	.550	.250	.350	.333	.250	.550	.600	.620

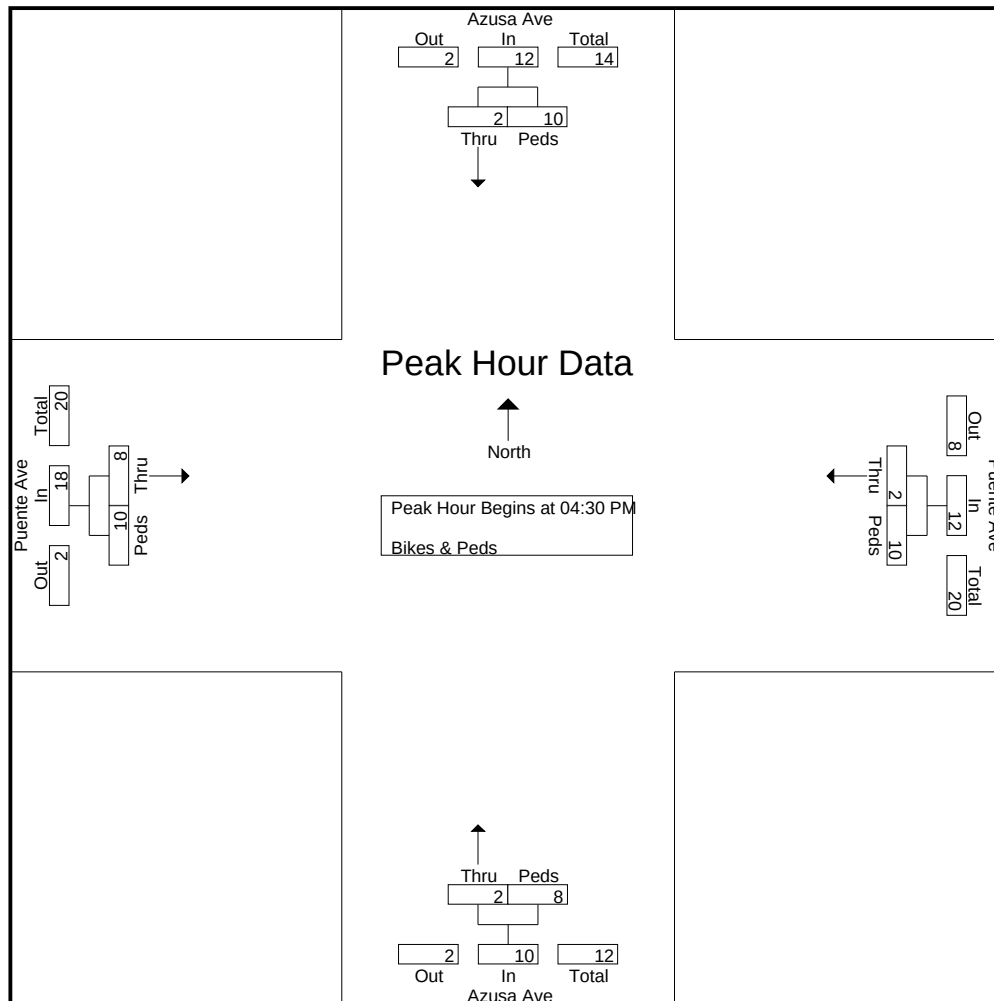


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	Azusa Ave Southbound			Puente Ave Westbound			Azusa Ave Northbound			Puente Ave Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	4	4	0	1	1	0	3	3	2	0	2	10
04:45 PM	2	4	6	1	0	1	0	0	0	5	3	8	15
05:00 PM	0	0	0	1	3	4	0	4	4	0	6	6	14
05:15 PM	0	2	2	0	6	6	2	1	3	1	1	2	13
Total Volume	2	10	12	2	10	12	2	8	10	8	10	18	52
% App. Total	16.7	83.3		16.7	83.3		20	80		44.4	55.6		
PHF	.250	.625	.500	.500	.417	.500	.250	.500	.625	.400	.417	.563	.867



CITY TRAFFIC COUNTERS
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File Name : Armel_Badillo
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Groups Printed- Vehicles

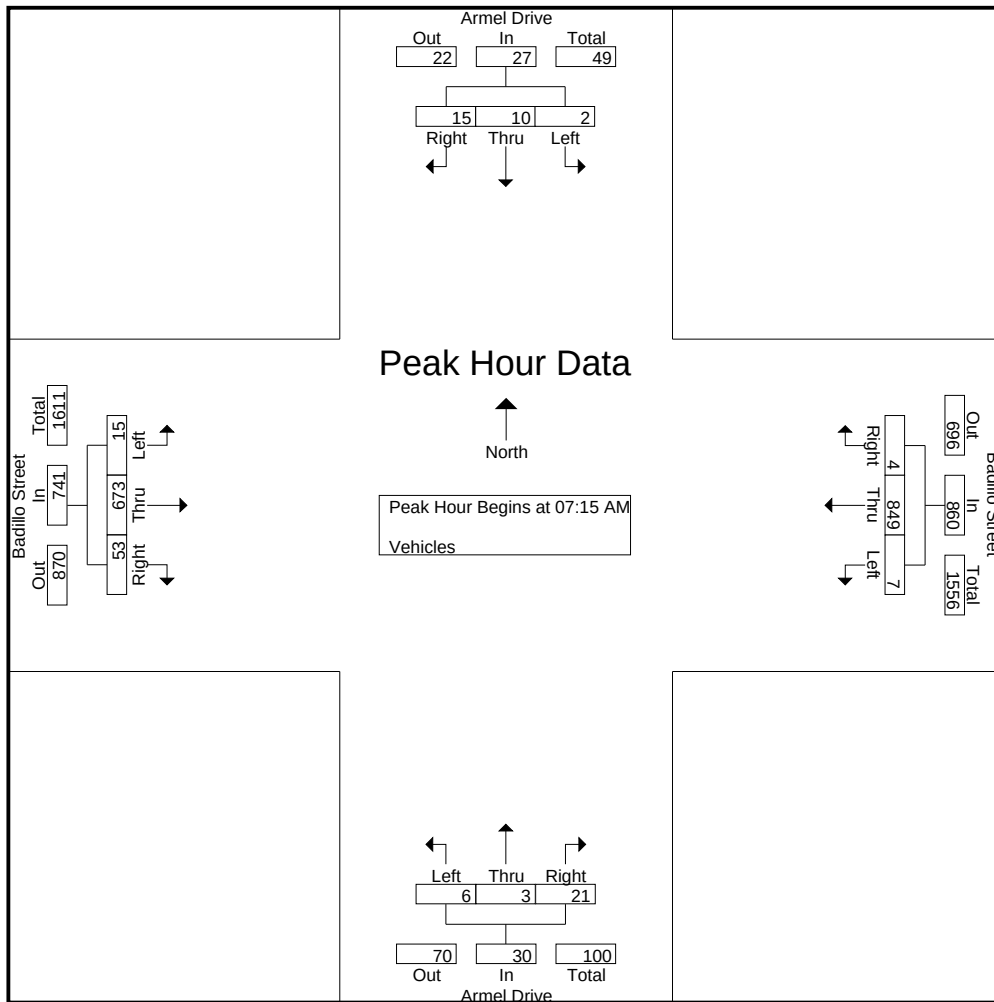
	Armel Drive Southbound			Badillo Street Westbound			Armel Drive Northbound			Badillo Street Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	4	1	187	0	2	0	0	3	79	1	277
07:15 AM	0	1	5	1	197	1	0	0	0	3	119	4	331
07:30 AM	2	3	1	3	241	1	1	0	7	2	183	22	466
07:45 AM	0	5	5	3	235	1	4	1	7	7	203	16	487
Total	2	9	15	8	860	3	7	1	14	15	584	43	1561
08:00 AM	0	1	4	0	176	1	1	2	7	3	168	11	374
08:15 AM	0	1	3	1	127	0	2	1	2	5	148	2	292
08:30 AM	2	0	3	2	101	1	1	1	1	6	139	4	261
08:45 AM	0	0	1	1	141	0	0	0	0	2	135	3	283
Total	2	2	11	4	545	2	4	4	10	16	590	20	1210
04:00 PM	1	3	0	1	128	1	0	2	1	3	249	9	398
04:15 PM	0	1	1	0	132	0	2	1	3	1	247	6	394
04:30 PM	1	1	2	3	168	1	2	2	1	4	257	2	444
04:45 PM	0	0	2	1	151	2	0	2	4	10	217	9	398
Total	2	5	5	5	579	4	4	7	9	18	970	26	1634
05:00 PM	1	1	5	3	161	0	2	0	4	6	250	12	445
05:15 PM	0	2	2	2	156	0	0	0	3	6	228	4	403
05:30 PM	1	1	6	2	184	1	1	4	1	5	230	2	438
05:45 PM	2	0	1	2	138	2	0	0	2	4	220	7	378
Total	4	4	14	9	639	3	3	4	10	21	928	25	1664
Grand Total	10	20	45	26	2623	12	18	16	43	70	3072	114	6069
Apprch %	13.3	26.7	60	1	98.6	0.5	23.4	20.8	55.8	2.1	94.3	3.5	
Total %	0.2	0.3	0.7	0.4	43.2	0.2	0.3	0.3	0.7	1.2	50.6	1.9	

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	Armel Drive Southbound				Badillo Street Westbound				Armel Drive Northbound				Badillo Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	5	6	1	197	1	199	0	0	0	0	3	119	4	126	331
07:30 AM	2	3	1	6	3	241	1	245	1	0	7	8	2	183	22	207	466
07:45 AM	0	5	5	10	3	235	1	239	4	1	7	12	7	203	16	226	487
08:00 AM	0	1	4	5	0	176	1	177	1	2	7	10	3	168	11	182	374
Total Volume	2	10	15	27	7	849	4	860	6	3	21	30	15	673	53	741	1658
% App. Total	7.4	37	55.6		0.8	98.7	0.5		20	10	70		2	90.8	7.2		
PHF	.250	.500	.750	.675	.583	.881	1.00	.878	.375	.375	.750	.625	.536	.829	.602	.820	.851

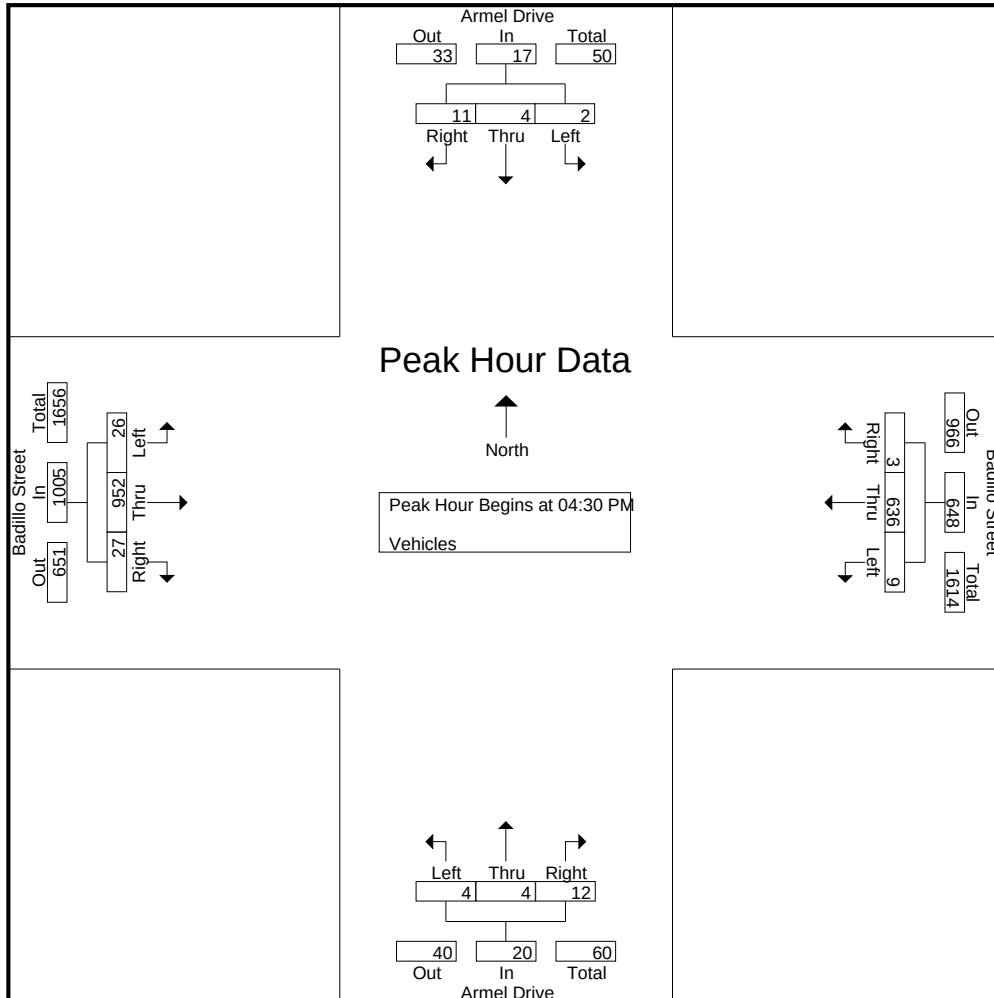


CITY TRAFFIC COUNTERS

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	Armel Drive Southbound				Badillo Street Westbound				Armel Drive Northbound				Badillo Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	1	2	4	3	168	1	172	2	2	1	5	4	257	2	263	444
04:45 PM	0	0	2	2	1	151	2	154	0	2	4	6	10	217	9	236	398
05:00 PM	1	1	5	7	3	161	0	164	2	0	4	6	6	250	12	268	445
05:15 PM	0	2	2	4	2	156	0	158	0	0	3	3	6	228	4	238	403
Total Volume	2	4	11	17	9	636	3	648	4	4	12	20	26	952	27	1005	1690
% App. Total	11.8	23.5	64.7		1.4	98.1	0.5		20	20	60		2.6	94.7	2.7		
PHF	.500	.500	.550	.607	.750	.946	.375	.942	.500	.500	.750	.833	.650	.926	.563	.938	.949



CITY TRAFFIC COUNTERS
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File Name : Armel_Badillo_BP
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Groups Printed- Bikes & Peds

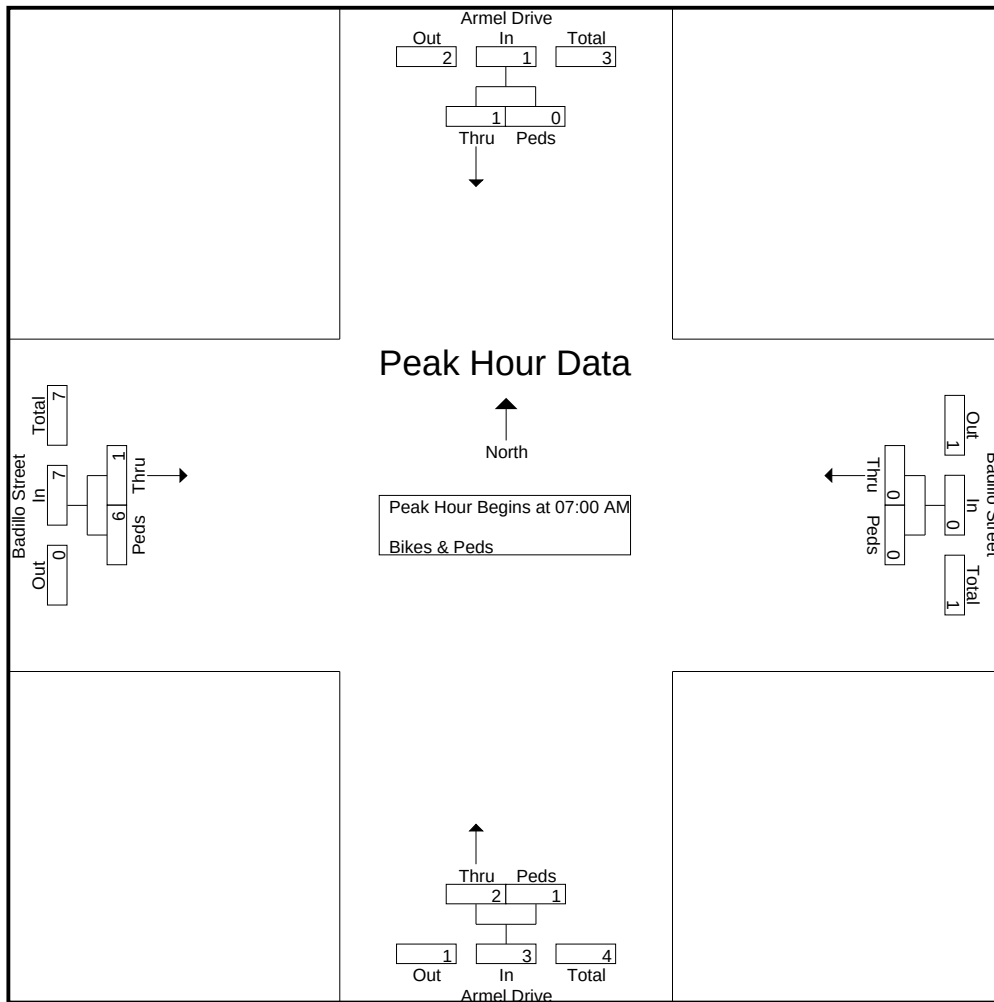
	Armel Drive Southbound		Badillo Street Westbound		Armel Drive Northbound		Badillo Street Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	0	0	0	0	1	0	0	2	3
07:30 AM	1	0	0	0	0	1	1	3	6
07:45 AM	0	0	0	0	1	0	0	1	2
Total	1	0	0	0	2	1	1	6	11
08:00 AM	0	2	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	1	0	0	0	1
08:30 AM	1	0	0	0	0	0	0	0	1
08:45 AM	1	0	0	0	1	0	0	0	2
Total	2	2	0	0	2	0	0	0	6
04:00 PM	1	0	0	0	0	0	0	0	1
04:15 PM	1	0	0	0	1	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	1	1
04:45 PM	0	2	0	0	1	0	0	0	3
Total	2	2	0	0	2	0	0	1	7
05:00 PM	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	2	2
05:30 PM	1	1	0	0	2	0	0	1	5
05:45 PM	1	3	0	0	2	0	1	0	7
Total	2	5	0	0	4	0	1	3	15
Grand Total	7	9	0	0	10	1	2	10	39
Apprch %	43.8	56.2	0	0	90.9	9.1	16.7	83.3	
Total %	17.9	23.1	0	0	25.6	2.6	5.1	25.6	

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	Armel Drive Southbound			Badillo Street Westbound			Armel Drive Northbound			Badillo Street Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	1	0	1	0	2	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	0	0	0	1	1	1	3	4	6
07:45 AM	0	0	0	0	0	0	1	0	1	0	1	1	2
Total Volume	1	0	1	0	0	0	2	1	3	1	6	7	11
% App. Total	100	0		0	0		66.7	33.3		14.3	85.7		
PHF	.250	.000	.250	.000	.000	.000	.500	.250	.750	.250	.500	.438	.458

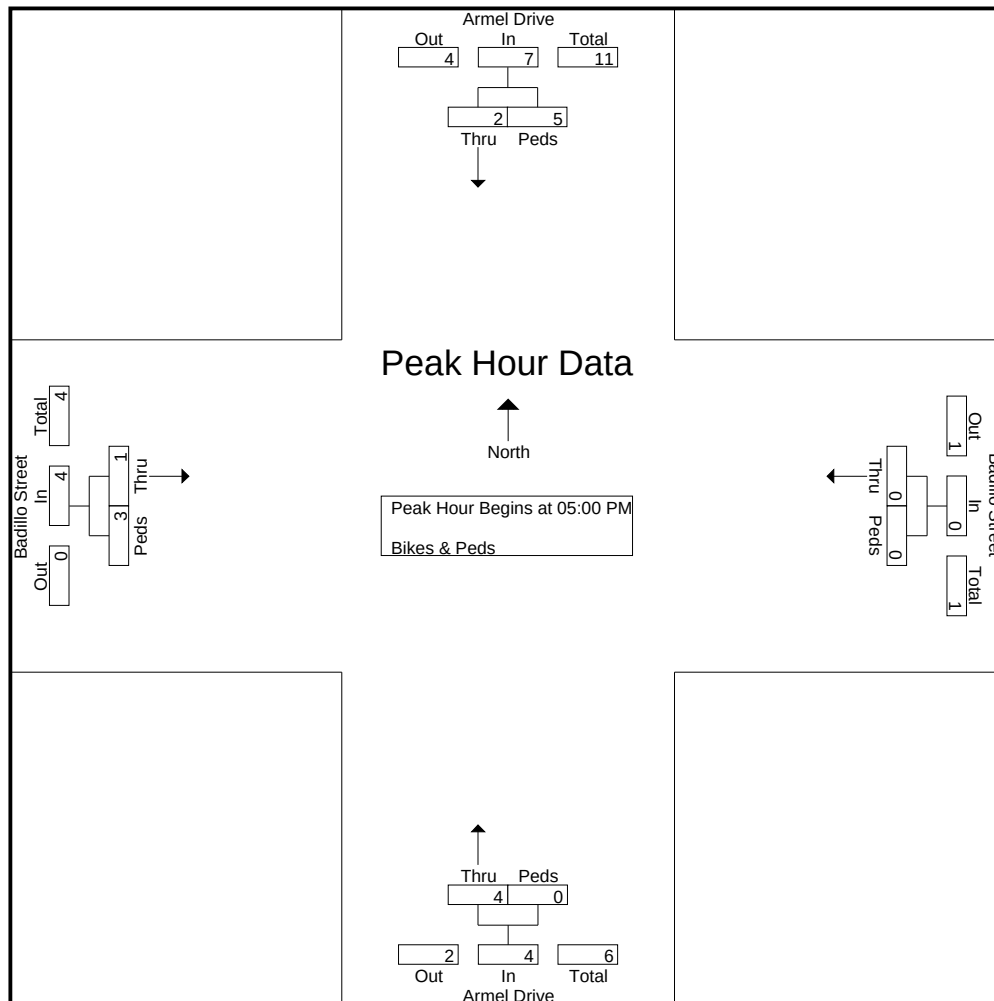


CITY TRAFFIC COUNTERS

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	Armel Drive Southbound			Badillo Street Westbound			Armel Drive Northbound			Badillo Street Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	2
05:30 PM	1	1	2	0	0	0	2	0	2	0	1	1	5
05:45 PM	1	3	4	0	0	0	2	0	2	1	0	1	7
Total Volume	2	5	7	0	0	0	4	0	4	1	3	4	15
% App. Total	28.6	71.4		0	0		100	0		25	75		
PHF	.500	.417	.438	.000	.000	.000	.500	.000	.500	.250	.375	.500	.536



CITY TRAFFIC COUNTERS
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Groups Printed- Vehicles

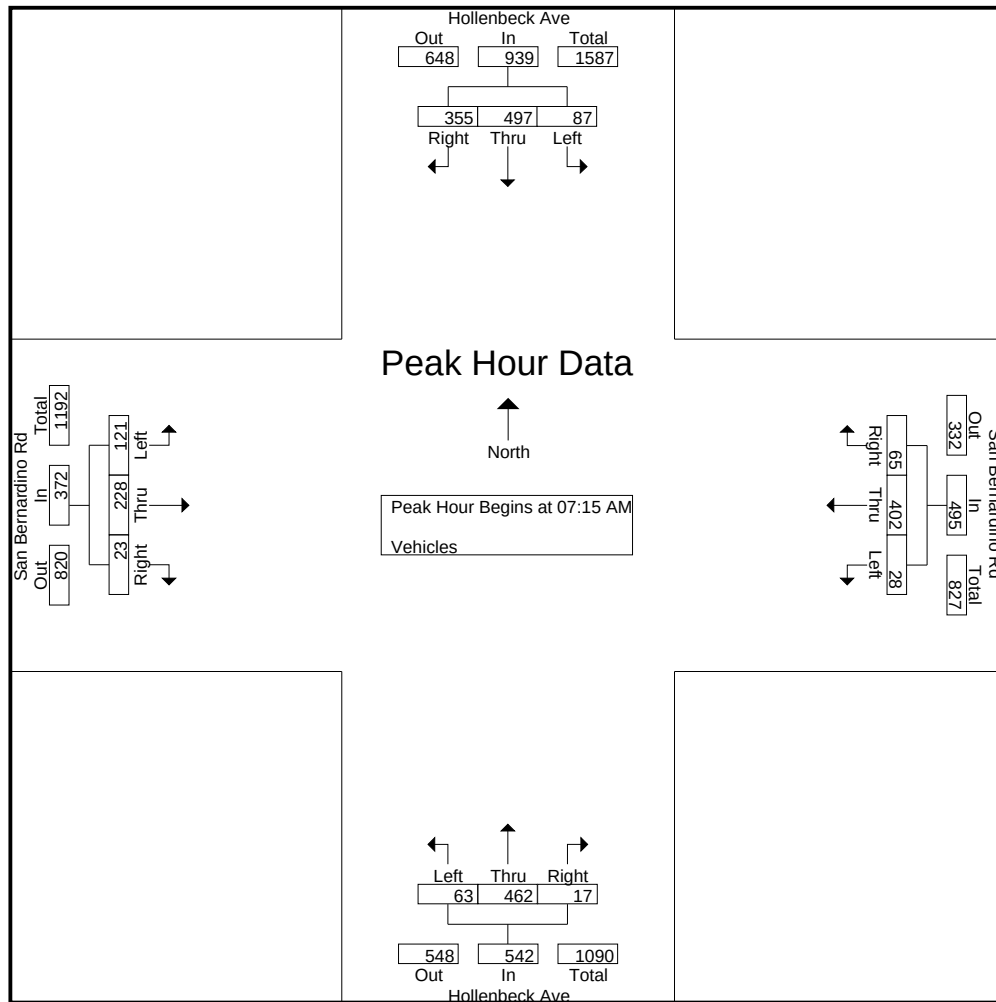
	Hollenbeck Ave Southbound			San Bernardino Rd Westbound			Hollenbeck Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	3	109	64	2	101	8	6	58	5	10	26	3	395
07:15 AM	13	135	85	7	89	9	14	102	4	9	32	7	506
07:30 AM	23	120	109	9	124	16	14	95	3	28	67	3	611
07:45 AM	25	118	96	8	95	24	23	157	3	51	71	6	677
Total	64	482	354	26	409	57	57	412	15	98	196	19	2189
08:00 AM	26	124	65	4	94	16	12	108	7	33	58	7	554
08:15 AM	26	103	46	6	74	14	12	102	4	17	59	5	468
08:30 AM	22	106	33	4	62	20	17	104	4	24	43	8	447
08:45 AM	26	104	40	6	52	13	7	89	5	21	60	8	431
Total	100	437	184	20	282	63	48	403	20	95	220	28	1900
04:00 PM	20	96	28	1	64	17	6	154	4	38	98	10	536
04:15 PM	10	97	26	1	61	19	3	157	4	52	96	10	536
04:30 PM	14	104	31	0	75	19	6	123	4	41	94	7	518
04:45 PM	11	108	39	1	79	25	3	131	2	42	103	6	550
Total	55	405	124	3	279	80	18	565	14	173	391	33	2140
05:00 PM	13	102	48	0	76	27	4	149	3	37	115	13	587
05:15 PM	7	104	27	0	71	37	13	154	6	50	98	22	589
05:30 PM	9	100	43	0	84	22	8	145	4	51	106	11	583
05:45 PM	17	108	49	0	81	16	8	153	7	42	107	8	596
Total	46	414	167	0	312	102	33	601	20	180	426	54	2355
Grand Total	265	1738	829	49	1282	302	156	1981	69	546	1233	134	8584
Apprch %	9.4	61.4	29.3	3	78.5	18.5	7.1	89.8	3.1	28.5	64.5	7	
Total %	3.1	20.2	9.7	0.6	14.9	3.5	1.8	23.1	0.8	6.4	14.4	1.6	

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	Hollenbeck Ave Southbound				San Bernardino Rd Westbound				Hollenbeck Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	13	135	85	233	7	89	9	105	14	102	4	120	9	32	7	48	506
07:30 AM	23	120	109	252	9	124	16	149	14	95	3	112	28	67	3	98	611
07:45 AM	25	118	96	239	8	95	24	127	23	157	3	183	51	71	6	128	677
08:00 AM	26	124	65	215	4	94	16	114	12	108	7	127	33	58	7	98	554
Total Volume	87	497	355	939	28	402	65	495	63	462	17	542	121	228	23	372	2348
% App. Total	9.3	52.9	37.8		5.7	81.2	13.1		11.6	85.2	3.1		32.5	61.3	6.2		
PHF	.837	.920	.814	.932	.778	.810	.677	.831	.685	.736	.607	.740	.593	.803	.821	.727	.867



CITY TRAFFIC COUNTERS

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File Name : Hollenbeck_SanBernardino_PM

Site Code : 00000000

Start Date : 10/3/2019

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Groups Printed- Vehicles

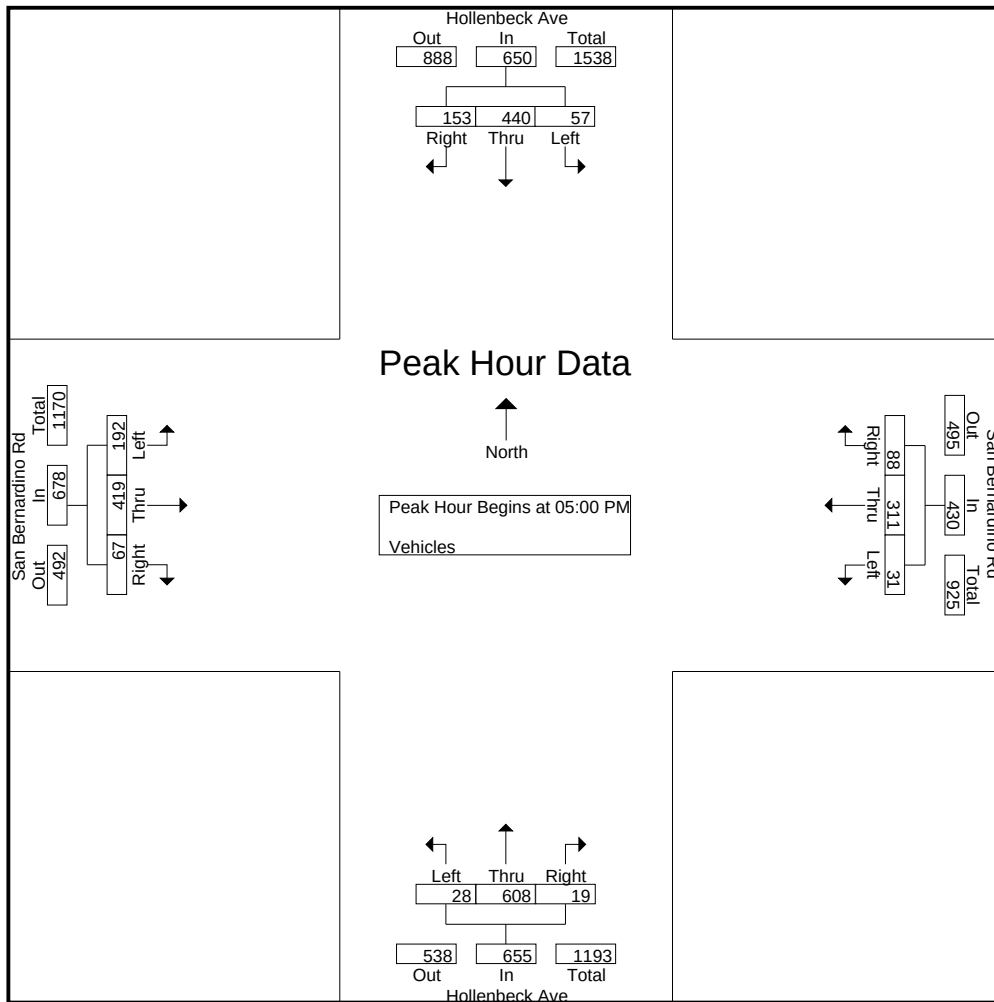
	Hollenbeck Ave Southbound			San Bernardino Rd Westbound			Hollenbeck Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	19	102	18	7	56	29	9	153	4	37	91	12	537
04:15 PM	13	92	23	10	70	18	10	156	3	40	81	11	527
04:30 PM	11	104	22	6	75	28	5	158	7	38	101	13	568
04:45 PM	10	91	32	6	75	21	7	149	3	43	80	11	528
Total	53	389	95	29	276	96	31	616	17	158	353	47	2160
05:00 PM	13	97	43	8	77	22	5	137	5	47	112	15	581
05:15 PM	15	109	27	9	73	27	11	153	6	53	97	25	605
05:30 PM	14	115	44	8	78	18	9	146	5	49	105	14	605
05:45 PM	15	119	39	6	83	21	3	172	3	43	105	13	622
Total	57	440	153	31	311	88	28	608	19	192	419	67	2413
Grand Total	110	829	248	60	587	184	59	1224	36	350	772	114	4573
Apprch %	9.3	69.8	20.9	7.2	70.6	22.1	4.5	92.8	2.7	28.3	62.5	9.2	
Total %	2.4	18.1	5.4	1.3	12.8	4	1.3	26.8	0.8	7.7	16.9	2.5	

CITY TRAFFIC COUNTERS

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	Hollenbeck Ave Southbound				San Bernardino Rd Westbound				Hollenbeck Ave Northbound				San Bernardino Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	13	97	43	153	8	77	22	107	5	137	5	147	47	112	15	174	581
05:15 PM	15	109	27	151	9	73	27	109	11	153	6	170	53	97	25	175	605
05:30 PM	14	115	44	173	8	78	18	104	9	146	5	160	49	105	14	168	605
05:45 PM	15	119	39	173	6	83	21	110	3	172	3	178	43	105	13	161	622
Total Volume	57	440	153	650	31	311	88	430	28	608	19	655	192	419	67	678	2413
% App. Total	8.8	67.7	23.5		7.2	72.3	20.5		4.3	92.8	2.9		28.3	61.8	9.9		
PHF	.950	.924	.869	.939	.861	.937	.815	.977	.636	.884	.792	.920	.906	.935	.670	.969	.970



CITY TRAFFIC COUNTERS

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File Name : Hollenbeck_SanBernardino_BP

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Groups Printed- Bikes & Peds

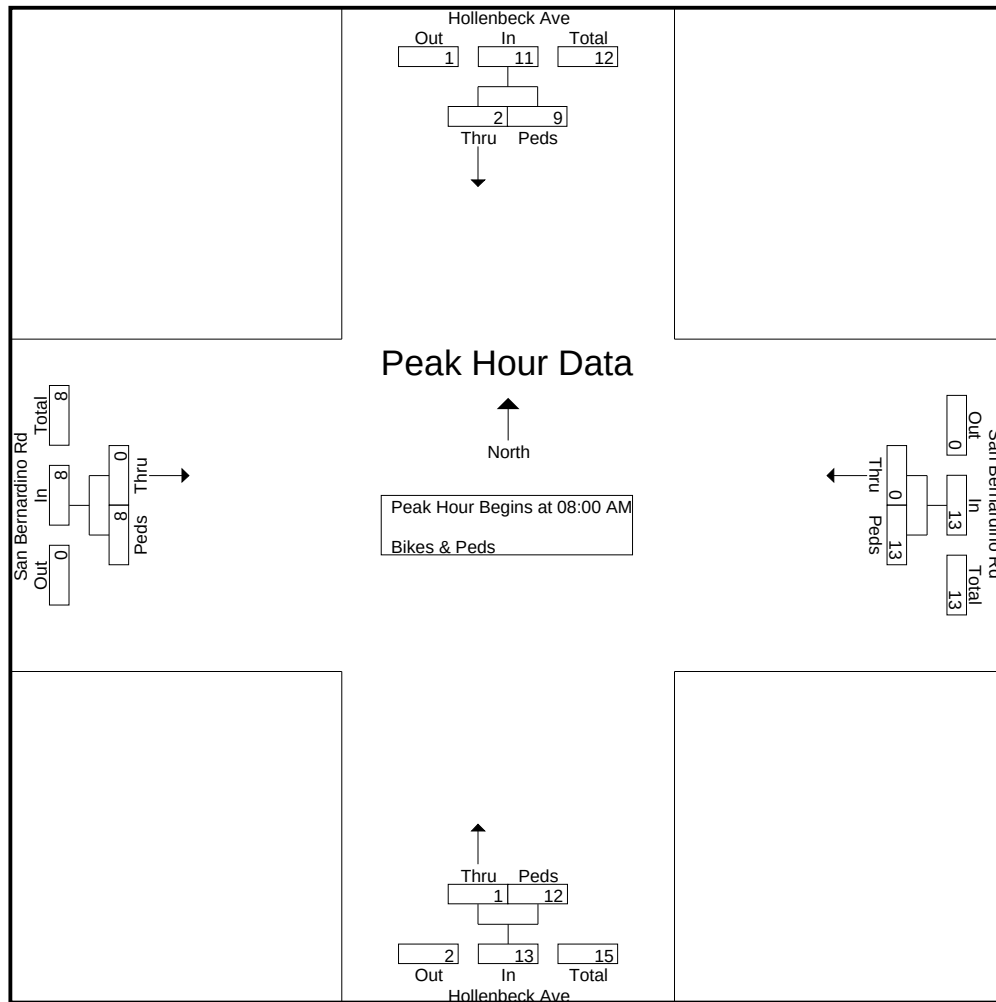
	Hollenbeck Ave Southbound		San Bernardino Rd Westbound		Hollenbeck Ave Northbound		San Bernardino Rd Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	1
07:15 AM	1	1	1	2	0	0	1	0	6
07:30 AM	0	2	0	2	0	0	1	1	6
07:45 AM	0	3	0	2	0	1	1	3	10
Total	1	6	1	6	0	2	3	4	23
08:00 AM	0	1	0	4	0	4	0	0	9
08:15 AM	0	0	0	5	0	2	0	0	7
08:30 AM	2	4	0	2	1	4	0	5	18
08:45 AM	0	4	0	2	0	2	0	3	11
Total	2	9	0	13	1	12	0	8	45
04:00 PM	2	1	0	0	0	0	0	1	4
04:15 PM	2	0	0	1	0	0	0	1	4
04:30 PM	2	1	1	0	0	0	1	0	5
04:45 PM	0	1	0	1	0	0	0	2	4
Total	6	3	1	2	0	0	1	4	17
05:00 PM	2	1	0	3	0	0	0	1	7
05:15 PM	0	3	0	0	0	0	0	2	5
05:30 PM	1	0	0	1	0	0	0	0	2
05:45 PM	0	2	0	1	0	1	0	1	5
Total	3	6	0	5	0	1	0	4	19
Grand Total	12	24	2	26	1	15	4	20	104
Apprch %	33.3	66.7	7.1	92.9	6.2	93.8	16.7	83.3	
Total %	11.5	23.1	1.9	25	1	14.4	3.8	19.2	

CITY TRAFFIC COUNTERS

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	Hollenbeck Ave Southbound			San Bernardino Rd Westbound			Hollenbeck Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	1	1	0	4	4	0	4	4	0	0	0	9
08:15 AM	0	0	0	0	5	5	0	2	2	0	0	0	7
08:30 AM	2	4	6	0	2	2	1	4	5	0	5	5	18
08:45 AM	0	4	4	0	2	2	0	2	2	0	3	3	11
Total Volume	2	9	11	0	13	13	1	12	13	0	8	8	45
% App. Total	18.2	81.8		0	100		7.7	92.3		0	100		
PHF	.250	.563	.458	.000	.650	.650	.250	.750	.650	.000	.400	.400	.625

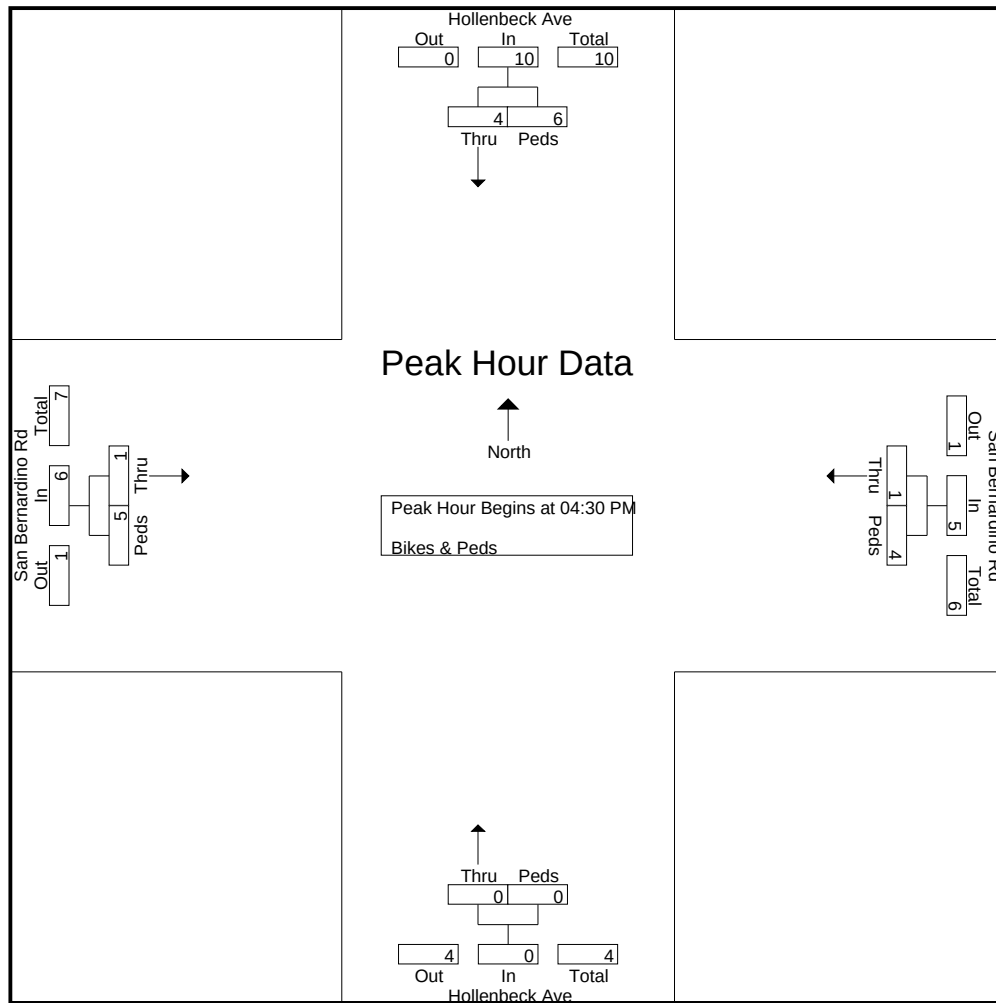


CITY TRAFFIC COUNTERS

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	Hollenbeck Ave Southbound			San Bernardino Rd Westbound			Hollenbeck Ave Northbound			San Bernardino Rd Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	2	1	3	1	0	1	0	0	0	1	0	1	5
04:45 PM	0	1	1	0	1	1	0	0	0	0	2	2	4
05:00 PM	2	1	3	0	3	3	0	0	0	0	1	1	7
05:15 PM	0	3	3	0	0	0	0	0	0	0	2	2	5
Total Volume	4	6	10	1	4	5	0	0	0	1	5	6	21
% App. Total	40	60		20	80		0	0		16.7	83.3		
PHF	.500	.500	.833	.250	.333	.417	.000	.000	.000	.250	.625	.750	.750



CITY TRAFFIC COUNTERS
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Groups Printed- Vehicles

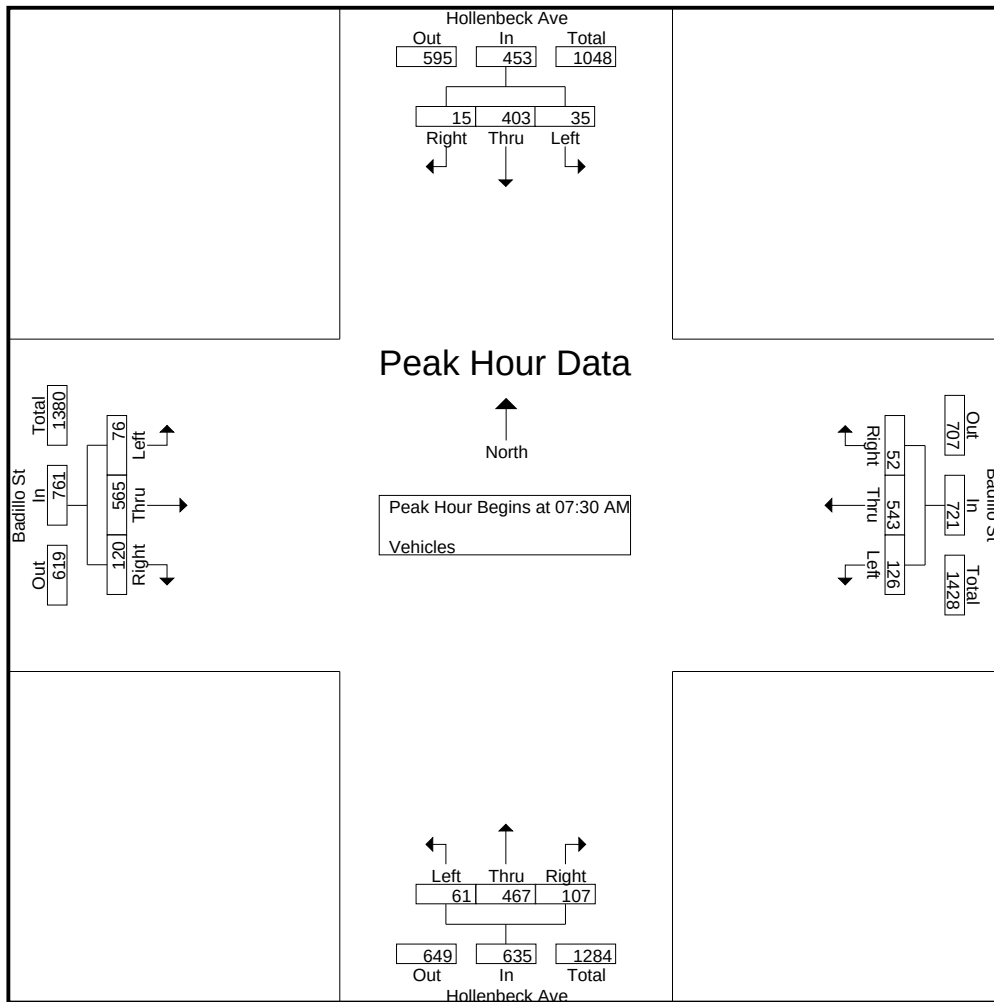
	Hollenbeck Ave Southbound			Badillo St Westbound			Hollenbeck Ave Northbound			Badillo St Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	3	83	9	22	219	13	15	50	2	9	54	13	492
07:15 AM	11	114	11	31	185	14	12	96	7	16	79	22	598
07:30 AM	13	118	3	50	161	12	19	103	19	16	109	45	668
07:45 AM	9	107	1	34	143	19	18	139	20	19	157	35	701
Total	36	422	24	137	708	58	64	388	48	60	399	115	2459
08:00 AM	9	104	6	20	99	10	9	107	27	18	142	20	571
08:15 AM	4	74	5	22	140	11	15	118	41	23	157	20	630
08:30 AM	7	115	5	17	122	18	11	98	28	15	77	29	542
08:45 AM	13	94	9	21	103	10	12	108	37	23	131	11	572
Total	33	387	25	80	464	49	47	431	133	79	507	80	2315
04:00 PM	9	87	5	25	115	9	10	139	35	26	187	29	676
04:15 PM	6	88	8	27	104	10	12	117	17	27	175	17	608
04:30 PM	10	83	3	31	97	15	16	105	27	42	150	22	601
04:45 PM	19	99	1	40	95	12	29	131	36	31	179	23	695
Total	44	357	17	123	411	46	67	492	115	126	691	91	2580
05:00 PM	10	83	9	25	124	11	17	120	34	36	176	16	661
05:15 PM	13	80	5	27	99	5	11	113	26	19	110	25	533
05:30 PM	10	68	4	18	92	14	15	111	30	27	142	15	546
05:45 PM	17	113	7	38	77	14	21	132	20	27	143	22	631
Total	50	344	25	108	392	44	64	476	110	109	571	78	2371
Grand Total	163	1510	91	448	1975	197	242	1787	406	374	2168	364	9725
Apprch %	9.2	85.6	5.2	17.1	75.4	7.5	9.9	73.4	16.7	12.9	74.6	12.5	
Total %	1.7	15.5	0.9	4.6	20.3	2	2.5	18.4	4.2	3.8	22.3	3.7	

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	Hollenbeck Ave Southbound				Badillo St Westbound				Hollenbeck Ave Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	13	118	3	134	50	161	12	223	19	103	19	141	16	109	45	170	668
07:45 AM	9	107	1	117	34	143	19	196	18	139	20	177	19	157	35	211	701
08:00 AM	9	104	6	119	20	99	10	129	9	107	27	143	18	142	20	180	571
08:15 AM	4	74	5	83	22	140	11	173	15	118	41	174	23	157	20	200	630
Total Volume	35	403	15	453	126	543	52	721	61	467	107	635	76	565	120	761	2570
% App. Total	7.7	89	3.3		17.5	75.3	7.2		9.6	73.5	16.9		10	74.2	15.8		
PHF	.673	.854	.625	.845	.630	.843	.684	.808	.803	.840	.652	.897	.826	.900	.667	.902	.917

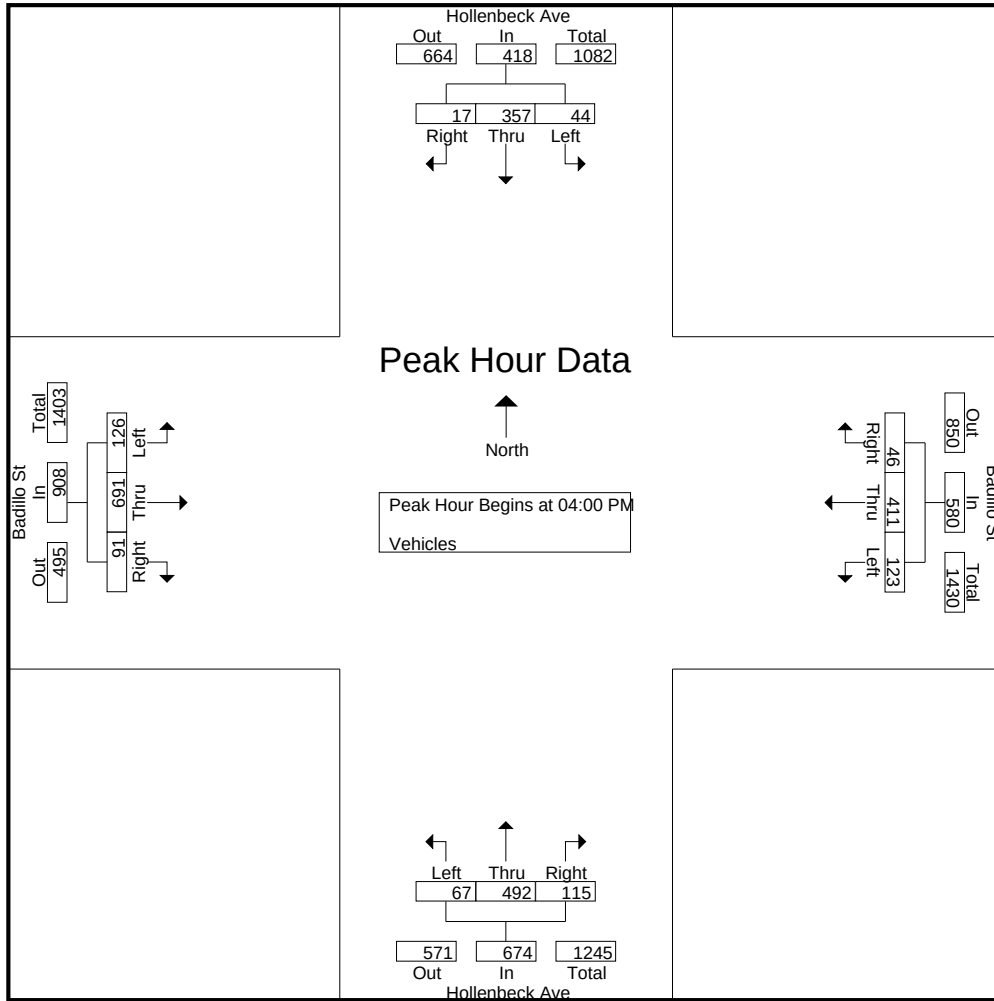


CITY TRAFFIC COUNTERS

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	Hollenbeck Ave Southbound				Badillo St Westbound				Hollenbeck Ave Northbound				Badillo St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	9	87	5	101	25	115	9	149	10	139	35	184	26	187	29	242	676
04:15 PM	6	88	8	102	27	104	10	141	12	117	17	146	27	175	17	219	608
04:30 PM	10	83	3	96	31	97	15	143	16	105	27	148	42	150	22	214	601
04:45 PM	19	99	1	119	40	95	12	147	29	131	36	196	31	179	23	233	695
Total Volume	44	357	17	418	123	411	46	580	67	492	115	674	126	691	91	908	2580
% App. Total	10.5	85.4	4.1		21.2	70.9	7.9		9.9	73	17.1		13.9	76.1	10		
PHF	.579	.902	.531	.878	.769	.893	.767	.973	.578	.885	.799	.860	.750	.924	.784	.938	.928



CITY TRAFFIC COUNTERS
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File Name : Hollenbeck_Badillo_BP
 Site Code : 00000000
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Groups Printed- Bikes & Peds

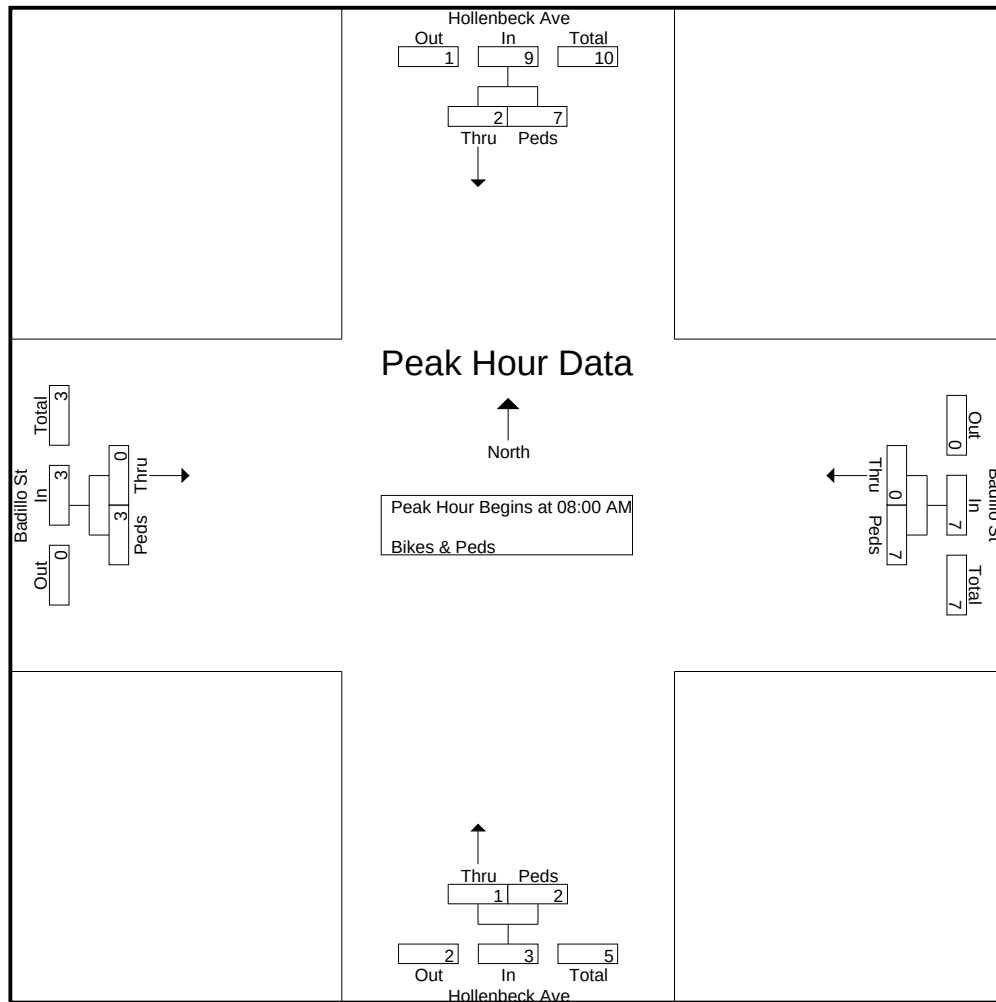
	Hollenbeck Ave Southbound		Badillo St Westbound		Hollenbeck Ave Northbound		Badillo St Eastbound		
Start Time	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds	Int. Total
07:00 AM	0	4	0	0	0	0	0	1	5
07:15 AM	0	1	1	3	0	2	0	1	8
07:30 AM	0	0	0	0	0	0	0	3	3
07:45 AM	0	0	1	1	1	0	1	0	4
Total	0	5	2	4	1	2	1	5	20
08:00 AM	0	0	0	2	0	1	0	0	3
08:15 AM	0	1	0	3	0	0	0	0	4
08:30 AM	1	0	0	1	1	0	0	2	5
08:45 AM	1	6	0	1	0	1	0	1	10
Total	2	7	0	7	1	2	0	3	22
04:00 PM	0	0	0	1	1	2	0	1	5
04:15 PM	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	1	0	2	1	0	0	4
04:45 PM	0	1	0	0	0	0	0	0	1
Total	0	1	1	1	3	3	0	2	11
05:00 PM	1	0	1	0	2	2	0	2	8
05:15 PM	0	1	0	2	1	3	0	1	8
05:30 PM	1	2	1	0	2	2	0	3	11
05:45 PM	1	0	0	1	0	0	2	0	4
Total	3	3	2	3	5	7	2	6	31
Grand Total	5	16	5	15	10	14	3	16	84
Apprch %	23.8	76.2	25	75	41.7	58.3	15.8	84.2	
Total %	6	19	6	17.9	11.9	16.7	3.6	19	

CITY TRAFFIC COUNTERS

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	Hollenbeck Ave Southbound			Badillo St Westbound			Hollenbeck Ave Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	0	0	0	2	2	0	1	1	0	0	0	3
08:15 AM	0	1	1	0	3	3	0	0	0	0	0	0	4
08:30 AM	1	0	1	0	1	1	1	0	1	0	2	2	5
08:45 AM	1	6	7	0	1	1	0	1	1	0	1	1	10
Total Volume	2	7	9	0	7	7	1	2	3	0	3	3	22
% App. Total	22.2	77.8		0	100		33.3	66.7		0	100		
PHF	.500	.292	.321	.000	.583	.583	.250	.500	.750	.000	.375	.375	.550

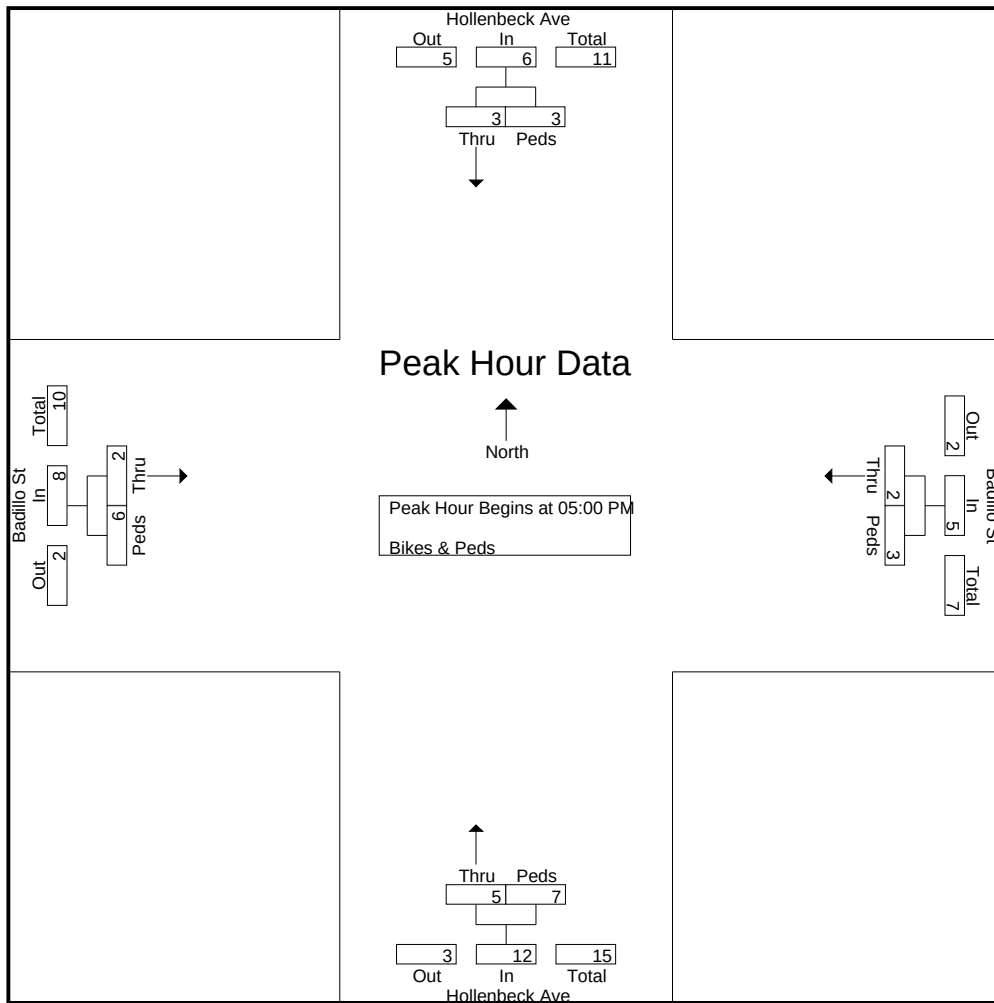


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File Name : Hollenbeck_Badillo_BP
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	Hollenbeck Ave Southbound			Badillo St Westbound			Hollenbeck Ave Northbound			Badillo St Eastbound			
Start Time	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Bikes	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	1	0	1	1	0	1	2	2	4	0	2	2	8
05:15 PM	0	1	1	0	2	2	1	3	4	0	1	1	8
05:30 PM	1	2	3	1	0	1	2	2	4	0	3	3	11
05:45 PM	1	0	1	0	1	1	0	0	0	2	0	2	4
Total Volume	3	3	6	2	3	5	5	7	12	2	6	8	31
% App. Total	50	50		40	60		41.7	58.3		25	75		
PHF	.750	.375	.500	.500	.375	.625	.625	.583	.750	.250	.500	.667	.705



APPENDIX C

ICU AND LEVELS OF SERVICE EXPLANATION
HCM AND LEVELS OF SERVICE EXPLANATION

NEAR-TERM (YEAR 2024) CONDITION
ICU AND HCM DATA WORKSHEETS –
WEEKDAY AM & PM PEAK HOURS

SPECIFIC PLAN BUILD-OUT (YEAR 2040) CONDITION
ICU AND HCM DATA WORKSHEETS –
WEEKDAY AM & PM PEAK HOURS

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing. The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics		
Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A

There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B

This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C

At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D

This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E

This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F

Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, 2000, level of service for unsignalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, in the absence of incidents, control, traffic, or geometric delay. Only the portion of total delay attributed to the traffic control measures, either traffic signals or stop signs, is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for unsignalized intersections are stated in terms of the average control delay per vehicle. The level of service is determined by the computed or measured control delay and is defined for each minor movement. Average control delay for any particular minor movement is a function of the service time for the approach and the degree of utilization. (Level of service is not defined for the intersection as a whole for two-way stop controlled intersections.)

Level of Service Criteria for TWSC/AWSC Intersections	
Level of Service	Average Control Delay (Sec/Veh)
A	≤ 10
B	$> 10 \text{ and } \leq 15$
C	$> 15 \text{ and } \leq 25$
D	$> 25 \text{ and } \leq 35$
E	$> 35 \text{ and } \leq 50$
F	> 50

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle.

LOS B describes operations with control delay greater than 10 and up to 15 seconds per vehicle.

LOS C describes operations with control delay greater than 15 and up to 25 seconds per vehicle.

LOS D describes operations with control delay greater than 25 and up to 35 seconds per vehicle.

LOS E describes operations with control delay greater than 35 and up to 50 seconds per vehicle.

LOS F describes operations with control delay in excess of 50 seconds per vehicle. For two-way stop controlled intersections, LOS F exists when there are insufficient gaps of suitable size to allow side-street demand to safely cross through a major-street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
 E-W St: Cypress Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU1

Lark Ellen Avenue @ Cypress Street
 Peak hr: AM
 Annual Growth: 1.00%

Date: 4/23/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	107	1600	0.067 *	5	112	1600	0.070 *	0	112	1600	0.070 *	5	0	112	1600	0.070 *	5	117	1600	0.073 *
NB Thru	409	3200	0.151	4	413	3200	0.152	0	413	3200	0.152	21	4	434	3200	0.160	4	438	3200	0.161
NB Right	73	0	0.000	0	73	0	0.000	0	73	0	0.000	4	0	77	0	0.000	0	77	0	0.000
SB Left	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	4	1	82	1600	0.051	0	82	1600	0.051
SB Thru	460	3200	0.172 *	4	464	3200	0.173 *	0	464	3200	0.173 *	23	4	487	3200	0.182 *	4	491	3200	0.183 *
SB Right	89	0	0.000	0	89	0	0.000	0	89	0	0.000	5	0	94	0	0.000	0	94	0	0.000
EB Left	60	1600	0.038 *	0	60	1600	0.038 *	0	60	1600	0.038 *	3	0	63	1600	0.039 *	0	63	1600	0.039 *
EB Thru	437	3200	0.168	0	437	3200	0.169	0	437	3200	0.169	22	14	473	3200	0.181	0	473	3200	0.182
EB Right	100	0	0.000	4	104	0	0.000	0	104	0	0.000	5	0	105	0	0.000	4	109	0	0.000
WB Left	239	1600	0.149	0	239	1600	0.149	0	239	1600	0.149	12	0	251	1600	0.157	0	251	1600	0.157
WB Thru	952	3200	0.321 *	0	952	3200	0.321 *	0	952	3200	0.321 *	49	9	1010	3200	0.341 *	0	1010	3200	0.341 *
WB Right	74	0	0.000	0	74	0	0.000	0	74	0	0.000	4	2	80	0	0.000	0	80	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *
ICU			0.697				0.701				0.701					0.732				0.736
LOS			B				C				C					C				C

- * Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Cypress Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU1

Lark Ellen Avenue @ Cypress Street
Peak hr: PM
Annual Growth: 1.00%

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	84	1600	0.053	3	87	1600	0.054	0	87	1600	0.054	4	0	88	1600	0.055	3	91	1600	0.057
NB Thru	472	3200	0.180 *	3	475	3200	0.181 *	0	475	3200	0.181 *	24	3	499	3200	0.190 *	3	502	3200	0.191 *
NB Right	104	0	0.000	0	104	0	0.000	0	104	0	0.000	5	0	109	0	0.000	0	109	0	0.000
SB Left	71	1600	0.044 *	0	71	1600	0.044 *	0	71	1600	0.044 *	4	3	78	1600	0.049 *	0	78	1600	0.049 *
SB Thru	441	3200	0.154	3	444	3200	0.155	0	444	3200	0.155	22	3	466	3200	0.163	3	469	3200	0.164
SB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	3	0	55	0	0.000	0	55	0	0.000
EB Left	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046	4	0	77	1600	0.048	0	77	1600	0.048
EB Thru	1066	3200	0.370 *	0	1066	3200	0.371 *	0	1066	3200	0.371 *	54	13	1133	3200	0.393 *	0	1133	3200	0.394 *
EB Right	118	0	0.000	4	122	0	0.000	0	122	0	0.000	6	0	124	0	0.000	4	128	0	0.000
WB Left	113	1600	0.071 *	0	113	1600	0.071 *	0	113	1600	0.071 *	6	0	119	1600	0.074 *	0	119	1600	0.074 *
WB Thru	416	3200	0.146	0	416	3200	0.146	0	416	3200	0.146	21	17	454	3200	0.159	0	454	3200	0.159
WB Right	51	0	0.000	0	51	0	0.000	0	51	0	0.000	3	2	56	0	0.000	0	56	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *	
ICU			0.765				0.767				0.767				0.806				0.808	
LOS			C				C				C				D				D	

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU2

Lark Ellen Avenue @ San Bernardino Road
Peak hr: AM
Annual Growth: 1.00%

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	86	1600	0.054	7	93	1600	0.058	0	93	1600	0.058	4	2	92	1600	0.058	7	99	1600	0.062	
NB Thru	522	3200	0.183 *	0	522	3200	0.187 *	0	522	3200	0.187 *	27	4	553	3200	0.193 *	0	553	3200	0.197 *	
NB Right	63	0	0.000	12	75	0	0.000	0	75	0	0.000	3	0	66	0	0.000	12	78	0	0.000	
SB Left	176	1600	0.110 *	8	184	1600	0.115 *	0	184	1600	0.115 *	9	0	185	1600	0.116 *	8	193	1600	0.121 *	
SB Thru	483	3200	0.209	0	483	3200	0.209	0	483	3200	0.209	25	4	512	3200	0.221	0	512	3200	0.221	
SB Right	185	0	0.000	0	185	0	0.000	0	185	0	0.000	9	0	194	0	0.000	0	194	0	0.000	
EB Left	85	1600	0.053 *	0	85	1600	0.053 *	0	85	1600	0.053 *	4	0	89	1600	0.056 *	0	89	1600	0.056 *	
EB Thru	346	3200	0.128	5	351	3200	0.130	0	351	3200	0.130	18	20	384	3200	0.142	5	389	3200	0.143	
EB Right	64	0	0.000	0	64	0	0.000	0	64	0	0.000	3	2	69	0	0.000	0	69	0	0.000	
WB Left	95	1600	0.059	0	95	1600	0.059	0	95	1600	0.059	5	0	100	1600	0.063	0	100	1600	0.063	
WB Thru	631	3200	0.243 *	0	631	3200	0.246 *	0	631	3200	0.246 *	32	23	686	3200	0.262 *	0	686	3200	0.265 *	
WB Right	146	0	0.000	9	155	0	0.000	0	155	0	0.000	7	0	153	0	0.000	9	162	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.639				0.650				0.650				0.677				0.688		
LOS			B				B				B				B				B		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counter
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU2

Lark Ellen Avenue @ San Bernardino Road
Peak hr: PM
Annual Growth: 1.00%

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	75	1600	0.047	4	79	1600	0.049	0	79	1600	0.049	4	1	80	1600	0.050	4	84	1600	0.053	
NB Thru	592	3200	0.219 *	0	592	3200	0.222 *	0	592	3200	0.222 *	30	3	625	3200	0.231 *	0	625	3200	0.234 *	
NB Right	108	0	0.000	10	118	0	0.000	0	118	0	0.000	6	0	114	0	0.000	10	124	0	0.000	
SB Left	107	1600	0.067 *	7	114	1600	0.071 *	0	114	1600	0.071 *	5	0	112	1600	0.070 *	7	119	1600	0.074 *	
SB Thru	512	3200	0.175	0	512	3200	0.175	0	512	3200	0.175	26	3	541	3200	0.185	0	541	3200	0.185	
SB Right	48	0	0.000	0	48	0	0.000	0	48	0	0.000	2	0	50	0	0.000	0	50	0	0.000	
EB Left	95	1600	0.059	0	95	1600	0.059	0	95	1600	0.059	5	0	100	1600	0.063	0	100	1600	0.063	
EB Thru	766	3200	0.280 *	5	771	3200	0.281 *	0	771	3200	0.281 *	39	29	834	3200	0.303 *	5	839	3200	0.305 *	
EB Right	129	0	0.000	0	129	0	0.000	0	129	0	0.000	7	1	137	0	0.000	0	137	0	0.000	
WB Left	81	1600	0.051 *	0	81	1600	0.051 *	0	81	1600	0.051 *	4	0	85	1600	0.053 *	0	85	1600	0.053 *	
WB Thru	354	3200	0.142	0	354	3200	0.144	0	354	3200	0.144	18	28	400	3200	0.158	0	400	3200	0.160	
WB Right	100	0	0.000	6	106	0	0.000	0	106	0	0.000	5	0	105	0	0.000	6	111	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.666				0.675				0.675				0.708				0.717		
LOS			B				B				B				C				C		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counter
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU3

Lark Ellen Avenue @ Badillo Street
Peak hr: AM
Annual Growth: 1.00%

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	74	1600	0.046	0	74	1600	0.046	0	74	1600	0.046	4	2	80	1600	0.050	0	80	1600	0.050
NB Thru	523	3200	0.185 *	7	530	3200	0.187 *	0	530	3200	0.187 *	27	5	555	3200	0.196 *	7	562	3200	0.198 *
NB Right	68	0	0.000	0	68	0	0.000	0	68	0	0.000	3	0	71	0	0.000	0	71	0	0.000
SB Left	63	1600	0.039 *	0	63	1600	0.039 *	0	63	1600	0.039 *	3	0	66	1600	0.041 *	0	66	1600	0.041 *
SB Thru	466	3200	0.156	0	466	3200	0.156	0	466	3200	0.156	24	5	495	3200	0.166	0	495	3200	0.166
SB Right	33	0	0.000	0	33	0	0.000	0	33	0	0.000	2	0	35	0	0.000	0	35	0	0.000
EB Left	43	1600	0.027 *	5	48	1600	0.030 *	0	48	1600	0.030 *	2	0	45	1600	0.028 *	5	50	1600	0.031 *
EB Thru	557	3200	0.202	0	557	3200	0.202	0	557	3200	0.202	28	6	591	3200	0.215	0	591	3200	0.215
EB Right	89	0	0.000	0	89	0	0.000	0	89	0	0.000	5	2	96	0	0.000	0	96	0	0.000
WB Left	195	1600	0.122	9	204	1600	0.128	0	204	1600	0.128	10	0	205	1600	0.128	9	214	1600	0.134
WB Thru	875	3200	0.299 *	6	881	3200	0.303 *	0	881	3200	0.303 *	45	5	925	3200	0.316 *	6	931	3200	0.320 *
WB Right	81	0	0.000	7	88	0	0.000	0	88	0	0.000	4	0	85	0	0.000	7	92	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *
ICU			0.650				0.659				0.659					0.681				0.690
LOS			B				B				B					B				B

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU3

Lark Ellen Avenue @ Badillo Street
Peak hr: PM
Annual Growth: 1.00%

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	52	1600	0.033	0	52	1600	0.033	0	52	1600	0.033	3	1	56	1600	0.035	0	56	1600	0.035	
NB Thru	566	3200	0.210 *	6	572	3200	0.212 *	0	572	3200	0.212 *	29	5	600	3200	0.222 *	6	606	3200	0.224 *	
NB Right	106	0	0.000	0	106	0	0.000	0	106	0	0.000	5	0	111	0	0.000	0	111	0	0.000	
SB Left	62	1600	0.039 *	0	62	1600	0.039 *	0	62	1600	0.039 *	3	0	65	1600	0.041 *	0	65	1600	0.041 *	
SB Thru	570	3200	0.192	0	570	3200	0.192	0	570	3200	0.192	29	5	604	3200	0.203	0	604	3200	0.203	
SB Right	44	0	0.000	0	44	0	0.000	0	44	0	0.000	2	0	46	0	0.000	0	46	0	0.000	
EB Left	62	1600	0.039	4	66	1600	0.041	0	66	1600	0.041	3	0	65	1600	0.041	4	69	1600	0.043	
EB Thru	861	3200	0.303 *	0	861	3200	0.303 *	0	861	3200	0.303 *	44	7	912	3200	0.321 *	0	912	3200	0.321 *	
EB Right	108	0	0.000	0	108	0	0.000	0	108	0	0.000	6	1	115	0	0.000	0	115	0	0.000	
WB Left	120	1600	0.075 *	6	126	1600	0.079 *	0	126	1600	0.079 *	6	0	126	1600	0.079 *	6	132	1600	0.083 *	
WB Thru	424	3200	0.153	4	428	3200	0.155	0	428	3200	0.155	22	8	454	3200	0.163	4	458	3200	0.166	
WB Right	65	0	0.000	4	69	0	0.000	0	69	0	0.000	3	0	68	0	0.000	4	72	0	0.000	
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *		
ICU			0.727				0.732				0.732				0.763				0.768		
LOS			C				C				C				C				C		

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU4

Lark Ellen Avenue @ Puente Avenue
Peak hr: AM
Annual Growth: 1.00%

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	158	1600	0.099 *	0	158	1600	0.099 *	0	158	1600	0.099 *	8	2	168	1600	0.105 *	0	168	1600	0.105 *
NB Thru	596	3200	0.199	4	600	3200	0.201	0	600	3200	0.201	30	5	631	3200	0.211	4	635	3200	0.212
NB Right	42	0	0.000	0	42	0	0.000	0	42	0	0.000	2	0	44	0	0.000	0	44	0	0.000
SB Left	72	1600	0.045	0	72	1600	0.045	0	72	1600	0.045	4	2	78	1600	0.049	0	78	1600	0.049
SB Thru	511	3200	0.198 *	4	515	3200	0.200 *	0	515	3200	0.200 *	26	5	542	3200	0.209 *	4	546	3200	0.212 *
SB Right	121	0	0.000	4	125	0	0.000	0	125	0	0.000	6	0	127	0	0.000	4	131	0	0.000
EB Left	78	1600	0.049 *	4	82	1600	0.051 *	0	82	1600	0.051 *	4	0	82	1600	0.051 *	4	86	1600	0.054 *
EB Thru	325	3200	0.134	0	325	3200	0.134	0	325	3200	0.134	17	7	349	3200	0.143	0	349	3200	0.143
EB Right	103	0	0.000	0	103	0	0.000	0	103	0	0.000	5	2	110	0	0.000	0	110	0	0.000
WB Left	49	1600	0.031	0	49	1600	0.031	0	49	1600	0.031	2	0	51	1600	0.032	0	51	1600	0.032
WB Thru	515	3200	0.179 *	0	515	3200	0.179 *	0	515	3200	0.179 *	26	8	549	3200	0.192 *	0	549	3200	0.192 *
WB Right	59	0	0.000	0	59	0	0.000	0	59	0	0.000	3	2	64	0	0.000	0	64	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *	
ICU			0.624				0.629				0.629				0.657				0.662	
LOS			B				B				B				B				B	

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU4

Lark Ellen Avenue @ Puente Avenue
Peak hr: PM
Annual Growth: 1.00%

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	75	1600	0.047 *	0	75	1600	0.047 *	0	75	1600	0.047 *	4	1	80	1600	0.050 *	0	80	1600	0.050 *	
NB Thru	706	3200	0.237	3	709	3200	0.238	0	709	3200	0.238	36	4	746	3200	0.250	3	749	3200	0.251	
NB Right	51	0	0.000	0	51	0	0.000	0	51	0	0.000	3	0	54	0	0.000	0	54	0	0.000	
SB Left	69	1600	0.043	0	69	1600	0.043	0	69	1600	0.043	4	2	75	1600	0.047	0	75	1600	0.047	
SB Thru	759	3200	0.251 *	3	762	3200	0.253 *	0	762	3200	0.253 *	39	4	802	3200	0.265 *	3	805	3200	0.267 *	
SB Right	44	0	0.000	3	47	0	0.000	0	47	0	0.000	2	0	46	0	0.000	3	49	0	0.000	
EB Left	79	1600	0.049	3	82	1600	0.051	0	82	1600	0.051	4	0	83	1600	0.052	3	86	1600	0.054	
EB Thru	584	3200	0.224 *	0	584	3200	0.224 *	0	584	3200	0.224 *	30	8	622	3200	0.239 *	0	622	3200	0.239 *	
EB Right	134	0	0.000	0	134	0	0.000	0	134	0	0.000	7	1	142	0	0.000	0	142	0	0.000	
WB Left	33	1600	0.021 *	0	33	1600	0.021 *	0	33	1600	0.021 *	2	0	35	1600	0.022 *	0	35	1600	0.022 *	
WB Thru	252	3200	0.096	0	252	3200	0.096	0	252	3200	0.096	13	7	272	3200	0.104	0	272	3200	0.104	
WB Right	56	0	0.000	0	56	0	0.000	0	56	0	0.000	3	2	61	0	0.000	0	61	0	0.000	
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *	
ICU			0.643				0.645				0.645					0.676				0.678	
LOS			B				B				B					B				B	

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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N-S St: Rimsdale Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU5

INTERSECTION CAPACITY UTILIZATION

Rimsdale Avenue @ San Bernardino Road
Peak hr: AM
Annual Growth: 1.00%

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	44	0	0.028	0	44	0	0.028	0	44	0	0.028	2	0	46	0	0.029	0	46	0	0.029
NB Thru	16	1600	0.061 *	0	16	1600	0.070 *	0	16	1600	0.070 *	1	0	17	1600	0.064 *	0	17	1600	0.073 *
NB Right	37	0	0.000	15	52	0	0.000	0	52	0	0.000	2	0	39	0	0.000	15	54	0	0.000
SB Left	23	1600	0.014 *	0	23	1600	0.014 *	0	23	1600	0.014 *	1	0	24	1600	0.015 *	0	24	1600	0.015 *
SB Thru	31	1600	0.037	0	31	1600	0.037	0	31	1600	0.037	2	0	33	1600	0.039	0	33	1600	0.039
SB Right	28	0	0.000	0	28	0	0.000	0	28	0	0.000	1	0	29	0	0.000	0	29	0	0.000
EB Left	17	1600	0.011 *	0	17	1600	0.011 *	0	17	1600	0.011 *	1	0	18	1600	0.011 *	0	18	1600	0.011 *
EB Thru	478	3200	0.173	7	485	3200	0.176	0	485	3200	0.176	24	18	520	3200	0.188	7	527	3200	0.190
EB Right	77	0	0.000	0	77	0	0.000	0	77	0	0.000	4	0	81	0	0.000	0	81	0	0.000
WB Left	82	1600	0.051	12	94	1600	0.059	0	94	1600	0.059	4	0	86	1600	0.054	12	98	1600	0.061
WB Thru	748	3200	0.238 *	5	753	3200	0.240 *	0	753	3200	0.240 *	38	21	807	3200	0.257 *	5	812	3200	0.259 *
WB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	1	0	16	0	0.000	0	16	0	0.000
Yellow Allowance				0.050 *			0.050 *				0.050 *					0.050 *				0.050 *
ICU				0.374			0.385				0.385					0.397				0.408
LOS				A			A				A					A				A

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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N-S St: Rimsdale Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU5

INTERSECTION CAPACITY UTILIZATION

Rimsdale Avenue @ San Bernardino Road
Peak hr: PM
Annual Growth: 1.00%

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	68	0	0.043	0	68	0	0.043	0	68	0	0.043	3	0	71	0	0.044	0	71	0	0.044
NB Thru	34	1600	0.133 *	0	34	1600	0.139 *	0	34	1600	0.139 *	2	0	36	1600	0.140 *	0	36	1600	0.146 *
NB Right	111	0	0.000	9	120	0	0.000	0	120	0	0.000	6	0	117	0	0.000	9	126	0	0.000
SB Left	48	1600	0.030 *	0	48	1600	0.030 *	0	48	1600	0.030 *	2	0	50	1600	0.031 *	0	50	1600	0.031 *
SB Thru	27	1600	0.041	0	27	1600	0.041	0	27	1600	0.041	1	0	28	1600	0.043	0	28	1600	0.043
SB Right	38	0	0.000	0	38	0	0.000	0	38	0	0.000	2	0	40	0	0.000	0	40	0	0.000
EB Left	50	1600	0.031	0	50	1600	0.031	0	50	1600	0.031	3	0	53	1600	0.033	0	53	1600	0.033
EB Thru	855	3200	0.296 *	4	859	3200	0.297 *	0	859	3200	0.297 *	44	27	926	3200	0.320 *	4	930	3200	0.321 *
EB Right	92	0	0.000	0	92	0	0.000	0	92	0	0.000	5	0	97	0	0.000	0	97	0	0.000
WB Left	56	1600	0.035 *	10	66	1600	0.041 *	0	66	1600	0.041 *	3	0	59	1600	0.037 *	10	69	1600	0.043 *
WB Thru	458	3200	0.154	5	463	3200	0.155	0	463	3200	0.155	23	26	507	3200	0.170	5	512	3200	0.171
WB Right	34	0	0.000	0	34	0	0.000	0	34	0	0.000	2	0	36	0	0.000	0	36	0	0.000
Yellow Allowance				0.050 *				0.050 *				0.050 *					0.050 *			
ICU				0.544				0.557				0.578					0.591			
LOS				A				A				A					A			

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

N-S St: Rimsdale Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU6

Rimsdale Avenue @ Badillo Street
 Peak hr: AM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *	
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	
SB Left	58	0	0.036	21	79	0	0.049	0	79	0	0.049	3	0	61	0	0.038	21	82	0	0.051	
SB Thru	0	1600	0.118 *	0	0	1600	0.131 *	0	0	1600	0.131 *	0	0	0	1600	0.124 *	0	0	1600	0.137 *	
SB Right	130	0	0.000	0	130	0	0.000	0	130	0	0.000	7	0	137	0	0.000	0	137	0	0.000	
EB Left	57	1600	0.036 *	0	57	1600	0.036 *	0	57	1600	0.036 *	3	0	60	1600	0.038 *	0	60	1600	0.038 *	
EB Thru	671	3200	0.210	0	671	3200	0.210	0	671	3200	0.210	34	6	711	3200	0.222	0	711	3200	0.222	
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000	
WB Thru	1050	3200	0.328 *	5	1055	3200	0.330 *	0	1055	3200	0.330 *	54	5	1109	3200	0.347 *	5	1114	3200	0.348 *	
WB Right	50	1600	0.031	12	62	1600	0.039	0	62	1600	0.039	3	0	53	1600	0.033	12	65	1600	0.041	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.531				0.546				0.546				0.558				0.573		
LOS			A				A				A				A				A		

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Rimsdale Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU6

Rimsdale Avenue @ Badillo Street
 Peak hr: PM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
SB Left	71	0	0.044	14	85	0	0.053	0	85	0	0.053	4	0	75	0	0.047	14	89	0	0.056
SB Thru	0	1600	0.079 *	0	0	1600	0.088 *	0	0	1600	0.088 *	0	0	0	1600	0.084 *	0	0	1600	0.093 *
SB Right	56	0	0.000	0	56	0	0.000	0	56	0	0.000	3	0	59	0	0.000	0	59	0	0.000
EB Left	107	1600	0.067	0	107	1600	0.067	0	107	1600	0.067	5	0	112	1600	0.070	0	112	1600	0.070
EB Thru	1048	3200	0.328 *	0	1048	3200	0.328 *	0	1048	3200	0.328 *	53	7	1108	3200	0.346 *	0	1108	3200	0.346 *
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	623	3200	0.195	5	628	3200	0.196	0	628	3200	0.196	32	8	663	3200	0.207	5	668	3200	0.209
WB Right	53	1600	0.033	10	63	1600	0.039	0	63	1600	0.039	3	0	56	1600	0.035	10	66	1600	0.041
Yellow Allowance	0.050 *			0.050 *				0.050 *				0.050 *					0.050 *			
ICU LOS	0.457 A			0.466 A				0.466 A				0.480 A					0.489 A			

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: Cypress Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU7

Azusa Avenue @ Cypress Street
 Peak hr: AM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	114	1600	0.071 *	0	114	1600	0.071 *	0	114	1600	0.071 *	6	0	120	1600	0.075 *	0	120	1600	0.075 *
NB Thru	733	3200	0.229	8	741	3200	0.232	0	741	3200	0.232	37	11	781	3200	0.244	8	789	3200	0.247
NB Right	55	1600	0.034	4	59	1600	0.037	0	59	1600	0.037	3	2	60	1600	0.038	4	64	1600	0.040
SB Left	41	1600	0.026	0	41	1600	0.026	0	41	1600	0.026	2	7	50	1600	0.031	0	50	1600	0.031
SB Thru	672	3200	0.210 *	7	679	3200	0.212 *	0	679	3200	0.212 *	34	11	717	3200	0.224 *	7	724	3200	0.226 *
SB Right	263	1600	0.164	0	263	1600	0.164	0	263	1600	0.164	13	0	276	1600	0.173	0	276	1600	0.173
EB Left	196	1600	0.123 *	0	196	1600	0.123 *	0	196	1600	0.123 *	10	0	206	1600	0.129 *	0	206	1600	0.129 *
EB Thru	422	3200	0.165	0	422	3200	0.165	0	422	3200	0.165	22	14	458	3200	0.178	0	458	3200	0.178
EB Right	107	0	0.000	0	107	0	0.000	0	107	0	0.000	5	0	112	0	0.000	0	112	0	0.000
WB Left	128	1600	0.080	3	131	1600	0.082	0	131	1600	0.082	7	1	136	1600	0.085	3	139	1600	0.087
WB Thru	602	3200	0.195 *	0	602	3200	0.195 *	0	602	3200	0.195 *	31	11	644	3200	0.211 *	0	644	3200	0.211 *
WB Right	23	0	0.000	0	23	0	0.000	0	23	0	0.000	1	7	31	0	0.000	0	31	0	0.000
Yellow Allowance				0.050 *			0.050 *				0.050 *					0.050 *				0.050 *
ICU				0.649			0.651				0.651					0.689				0.691
LOS				B			B				B					B				B

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: Cypress Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU7

Azusa Avenue @ Cypress Street
 Peak hr: PM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	96	1600	0.060	0	96	1600	0.060	0	96	1600	0.060	5	0	101	1600	0.063	0	101	1600	0.063	
NB Thru	785	3200	0.245 *	5	790	3200	0.247 *	0	790	3200	0.247 *	40	9	834	3200	0.261 *	5	839	3200	0.262 *	
NB Right	129	1600	0.081	2	131	1600	0.082	0	131	1600	0.082	7	1	137	1600	0.086	2	139	1600	0.087	
SB Left	55	1600	0.034 *	0	55	1600	0.034 *	0	55	1600	0.034 *	3	10	68	1600	0.043 *	0	68	1600	0.043 *	
SB Thru	700	3200	0.219	6	706	3200	0.221	0	706	3200	0.221	36	9	745	3200	0.233	6	751	3200	0.235	
SB Right	163	1600	0.102	0	163	1600	0.102	0	163	1600	0.102	8	0	171	1600	0.107	0	171	1600	0.107	
EB Left	227	1600	0.142	0	227	1600	0.142	0	227	1600	0.142	12	0	239	1600	0.149	0	239	1600	0.149	
EB Thru	959	3200	0.324 *	0	959	3200	0.324 *	0	959	3200	0.324 *	49	14	1022	3200	0.345 *	0	1022	3200	0.345 *	
EB Right	78	0	0.000	0	78	0	0.000	0	78	0	0.000	4	0	82	0	0.000	0	82	0	0.000	
WB Left	97	1600	0.061 *	3	100	1600	0.063 *	0	100	1600	0.063 *	5	2	104	1600	0.065 *	3	107	1600	0.067 *	
WB Thru	405	3200	0.136	0	405	3200	0.136	0	405	3200	0.136	21	18	444	3200	0.152	0	444	3200	0.152	
WB Right	30	0	0.000	0	30	0	0.000	0	30	0	0.000	2	10	42	0	0.000	0	42	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *					0.050 *				0.050 *	
ICU			0.714				0.718				0.718					0.763				0.767	
LOS			C				C				C					C				C	

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU8

Azusa Avenue @ San Bernardino Road
 Peak hr: AM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	110	1600	0.069 *	0	110	1600	0.069 *	0	110	1600	0.069 *	6	0	116	1600	0.073 *	0	116	1600	0.073 *
NB Thru	624	3200	0.213	0	624	3200	0.213	0	624	3200	0.213	32	13	669	3200	0.229	0	669	3200	0.229
NB Right	57	0	0.000	0	57	0	0.000	0	57	0	0.000	3	5	65	0	0.000	0	65	0	0.000
SB Left	66	1600	0.041	0	66	1600	0.041	0	66	1600	0.041	3	0	69	1600	0.043	0	69	1600	0.043
SB Thru	687	3200	0.278 *	0	687	3200	0.281 *	0	687	3200	0.281 *	35	12	734	3200	0.296 *	0	734	3200	0.299 *
SB Right	202	0	0.000	10	212	0	0.000	0	212	0	0.000	10	0	212	0	0.000	10	222	0	0.000
EB Left	130	1600	0.081 *	12	142	1600	0.089 *	0	142	1600	0.089 *	7	0	137	1600	0.086 *	12	149	1600	0.093 *
EB Thru	294	3200	0.126	9	303	3200	0.129	0	303	3200	0.129	15	20	329	3200	0.139	9	338	3200	0.142
EB Right	109	0	0.000	0	109	0	0.000	0	109	0	0.000	6	0	115	0	0.000	0	115	0	0.000
WB Left	144	1600	0.090	0	144	1600	0.090	0	144	1600	0.090	7	7	158	1600	0.099	0	158	1600	0.099
WB Thru	563	3200	0.191 *	8	571	3200	0.194 *	0	571	3200	0.194 *	29	23	615	3200	0.208 *	8	623	3200	0.211 *
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	2	0	51	0	0.000	0	51	0	0.000
Yellow Allowance			0.050 *				0.050 *				0.050 *					0.050 *				0.050 *
ICU			0.669				0.682				0.682					0.712				0.725
LOS			B				B				B					C				C

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU8

Azusa Avenue @ San Bernardino Road
 Peak hr: PM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	112	1600	0.070 *	0	112	1600	0.070 *	0	112	1600	0.070 *	6	0	118	1600	0.074 *	0	118	1600	0.074 *
NB Thru	701	3200	0.241	0	701	3200	0.241	0	701	3200	0.241	36	10	747	3200	0.259	0	747	3200	0.259
NB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	4	8	81	0	0.000	0	81	0	0.000
SB Left	136	1600	0.085	0	136	1600	0.085	0	136	1600	0.085	7	0	143	1600	0.089	0	143	1600	0.089
SB Thru	724	3200	0.262 *	0	724	3200	0.265 *	0	724	3200	0.265 *	37	11	772	3200	0.279 *	0	772	3200	0.282 *
SB Right	115	0	0.000	8	123	0	0.000	0	123	0	0.000	6	0	121	0	0.000	8	129	0	0.000
EB Left	199	1600	0.124	8	207	1600	0.129	0	207	1600	0.129	10	0	209	1600	0.131	8	217	1600	0.136
EB Thru	591	3200	0.220 *	6	597	3200	0.222 *	0	597	3200	0.222 *	30	29	650	3200	0.240 *	6	656	3200	0.242 *
EB Right	113	0	0.000	0	113	0	0.000	0	113	0	0.000	6	0	119	0	0.000	0	119	0	0.000
WB Left	122	1600	0.076 *	0	122	1600	0.076 *	0	122	1600	0.076 *	6	6	134	1600	0.084 *	0	134	1600	0.084 *
WB Thru	280	3200	0.107	7	287	3200	0.109	0	287	3200	0.109	14	28	322	3200	0.121	7	329	3200	0.123
WB Right	63	0	0.000	0	63	0	0.000	0	63	0	0.000	3	0	66	0	0.000	0	66	0	0.000
Yellow Allowance			0.050 *				0.050 *				0.050 *					0.050 *				0.050 *
ICU							0.678				0.683					0.727				0.731
LOS							B				B					C				C

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU9

Azusa Avenue @ Badillo Street
 Peak hr: AM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	270	1600	0.169 *	10	280	1600	0.175 *	0	280	1600	0.175 *	14	0	284	1600	0.178 *	10	294	1600	0.184 *	
NB Thru	773	3200	0.268	0	773	3200	0.268	0	773	3200	0.268	39	18	830	3200	0.287	0	830	3200	0.287	
NB Right	83	0	0.000	0	83	0	0.000	0	83	0	0.000	4	2	89	0	0.000	0	89	0	0.000	
SB Left	108	1600	0.068	0	108	1600	0.068	0	108	1600	0.068	6	0	114	1600	0.071	0	114	1600	0.071	
SB Thru	696	3200	0.258 *	0	696	3200	0.258 *	0	696	3200	0.258 *	36	19	751	3200	0.278 *	0	751	3200	0.278 *	
SB Right	131	0	0.000	0	131	0	0.000	0	131	0	0.000	7	0	138	0	0.000	0	138	0	0.000	
EB Left	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	4	0	83	1600	0.052 *	0	83	1600	0.052 *	
EB Thru	548	3200	0.195	9	557	3200	0.202	0	557	3200	0.202	28	6	582	3200	0.207	9	591	3200	0.214	
EB Right	77	0	0.000	12	89	0	0.000	0	89	0	0.000	4	0	81	0	0.000	12	93	0	0.000	
WB Left	109	1600	0.068	0	109	1600	0.068	0	109	1600	0.068	6	2	117	1600	0.073	0	117	1600	0.073	
WB Thru	747	3200	0.249 *	8	755	3200	0.251 *	0	755	3200	0.251 *	38	5	790	3200	0.263 *	8	798	3200	0.265 *	
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	2	0	51	0	0.000	0	51	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.775				0.784				0.784				0.820				0.829		
LOS			C				C				C				D				D		

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU9

Azusa Avenue @ Badillo Street
Peak hr: PM
Annual Growth: 1.00%

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	128	1600	0.080 *	8	136	1600	0.085 *	0	136	1600	0.085 *	7	0	135	1600	0.084 *	8	143	1600	0.089 *	
NB Thru	792	3200	0.267	0	792	3200	0.267	0	792	3200	0.267	40	18	850	3200	0.286	0	850	3200	0.286	
NB Right	62	0	0.000	0	62	0	0.000	0	62	0	0.000	3	1	66	0	0.000	0	66	0	0.000	
SB Left	112	1600	0.070	0	112	1600	0.070	0	112	1600	0.070	6	0	118	1600	0.074	0	118	1600	0.074	
SB Thru	871	3200	0.294 *	0	871	3200	0.294 *	0	871	3200	0.294 *	44	18	933	3200	0.314 *	0	933	3200	0.314 *	
SB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	4	0	73	0	0.000	0	73	0	0.000	
EB Left	126	1600	0.079	0	126	1600	0.079	0	126	1600	0.079	6	0	132	1600	0.083	0	132	1600	0.083	
EB Thru	870	3200	0.308 *	6	876	3200	0.312 *	0	876	3200	0.312 *	44	7	921	3200	0.326 *	6	927	3200	0.330 *	
EB Right	115	0	0.000	8	123	0	0.000	0	123	0	0.000	6	0	121	0	0.000	8	129	0	0.000	
WB Left	156	1600	0.098 *	0	156	1600	0.098 *	0	156	1600	0.098 *	8	1	165	1600	0.103 *	0	165	1600	0.103 *	
WB Thru	493	3200	0.169	7	500	3200	0.171	0	500	3200	0.171	25	8	526	3200	0.180	7	533	3200	0.182	
WB Right	48	0	0.000	0	48	0	0.000	0	48	0	0.000	2	0	50	0	0.000	0	50	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU LOS			0.829 D				0.838 D				0.838 D				0.878 D				0.887 D		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU9

Azusa Avenue @ Badillo Street
 Peak hr: AM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024
With Planning Areas 1 and 2 Only

Date: 6/23/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT (PA 1 & 2)				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT (PA 1 & 2)			
	1	2	V/C			2	V/C			2	V/C	Added	Added		2	V/C			2	V/C
Movement	Volume	Capacity	Ratio	Added Volume	Total Volume	Capacity	Ratio	Added Volume	Total Volume	Capacity	Ratio	Amb. Grow. Volume	Rel. Proj. Volume	Total Volume	Capacity	Ratio	Added Volume	Total Volume	Capacity	Ratio
NB Left	270	1600	0.169 *	10	280	1600	0.175 *	0	280	1600	0.175 *	38	0	308	1600	0.193 *	10	318	1600	0.199 *
NB Thru	773	3200	0.268	0	773	3200	0.268	0	773	3200	0.268	106	18	897	3200	0.310	0	897	3200	0.310
NB Right	83	0	0.000	0	83	0	0.000	0	83	0	0.000	11	2	96	0	0.000	0	96	0	0.000
SB Left	108	1600	0.068	0	108	1600	0.068	0	108	1600	0.068	15	0	123	1600	0.077	0	123	1600	0.077
SB Thru	696	3200	0.258 *	0	696	3200	0.258 *	0	696	3200	0.258 *	97	19	812	3200	0.300 *	0	812	3200	0.300 *
SB Right	131	0	0.000	0	131	0	0.000	0	131	0	0.000	18	0	149	0	0.000	0	149	0	0.000
EB Left	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	11	0	90	1600	0.056 *	0	90	1600	0.056 *
EB Thru	548	3200	0.195	9	557	3200	0.202	0	557	3200	0.202	76	6	630	3200	0.224	9	639	3200	0.231
EB Right	77	0	0.000	12	89	0	0.000	0	89	0	0.000	11	0	88	0	0.000	12	100	0	0.000
WB Left	109	1600	0.068	0	109	1600	0.068	0	109	1600	0.068	16	2	127	1600	0.079	0	127	1600	0.079
WB Thru	747	3200	0.249 *	8	755	3200	0.251 *	0	755	3200	0.251 *	103	5	855	3200	0.284 *	8	863	3200	0.287 *
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	6	0	55	0	0.000	0	55	0	0.000
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *	
ICU			0.775				0.784				0.784				0.883				0.892	
LOS			C				C				C				D				D	

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU9

Azusa Avenue @ Badillo Street
 Peak hr: PM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024
With Planning Areas 1 and 2 Only

Date: 6/23/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT (PA 1 & 2)				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT (PA 1 & 2)			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	128	1600	0.080 *	8	136	1600	0.085 *	0	136	1600	0.085 *	18	0	146	1600	0.091 *	8	154	1600	0.096 *
NB Thru	792	3200	0.267	0	792	3200	0.267	0	792	3200	0.267	109	18	919	3200	0.309	0	919	3200	0.309
NB Right	62	0	0.000	0	62	0	0.000	0	62	0	0.000	8	1	71	0	0.000	0	71	0	0.000
SB Left	112	1600	0.070	0	112	1600	0.070	0	112	1600	0.070	16	0	128	1600	0.080	0	128	1600	0.080
SB Thru	871	3200	0.294 *	0	871	3200	0.294 *	0	871	3200	0.294 *	120	18	1009	3200	0.340 *	0	1009	3200	0.340 *
SB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	10	0	79	0	0.000	0	79	0	0.000
EB Left	126	1600	0.079	0	126	1600	0.079	0	126	1600	0.079	17	0	143	1600	0.089	0	143	1600	0.089
EB Thru	870	3200	0.308 *	6	876	3200	0.312 *	0	876	3200	0.312 *	120	7	997	3200	0.353 *	6	1003	3200	0.357 *
EB Right	115	0	0.000	8	123	0	0.000	0	123	0	0.000	16	0	131	0	0.000	8	139	0	0.000
WB Left	156	1600	0.098 *	0	156	1600	0.098 *	0	156	1600	0.098 *	22	1	179	1600	0.112 *	0	179	1600	0.112 *
WB Thru	493	3200	0.169	7	500	3200	0.171	0	500	3200	0.171	68	8	569	3200	0.195	7	576	3200	0.197
WB Right	48	0	0.000	0	48	0	0.000	0	48	0	0.000	6	0	54	0	0.000	0	54	0	0.000
Yellow Allowance	0.050 *			0.050 *				0.050 *				0.050 *					0.050 *			
ICU	0.829			0.838				0.838				0.946					0.955			
LOS	D			D				D				E					E			

* Key conflicting movement as a part of ICU
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 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU9

Azusa Avenue @ Badillo Street
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024
With Planning Areas 3 and 4 Only

Date: 6/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT (PA 3 & 4)				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT (PA 3 & 4)			
	1	2	V/C			2	V/C			2	V/C	Added	Added		2	V/C			2	V/C	
Movement	Volume	Capacity	Ratio	Added Volume	Total Volume	Capacity	Ratio	Added Volume	Total Volume	Capacity	Ratio	Amb. Grow. Volume	Rel. Proj. Volume	Total Volume	Capacity	Ratio	Added Volume	Total Volume	Capacity	Ratio	
NB Left	270	1600	0.169 *	-1	269	1600	0.168 *	0	269	1600	0.168 *	38	0	308	1600	0.193 *	-1	307	1600	0.192 *	
NB Thru	773	3200	0.268	-1	772	3200	0.267	0	772	3200	0.267	106	18	897	3200	0.310	-1	896	3200	0.310	
NB Right	83	0	0.000	0	83	0	0.000	0	83	0	0.000	11	2	96	0	0.000	0	96	0	0.000	
SB Left	108	1600	0.068	0	108	1600	0.068	0	108	1600	0.068	15	0	123	1600	0.077	0	123	1600	0.077	
SB Thru	696	3200	0.258 *	-3	693	3200	0.258 *	0	693	3200	0.258 *	97	19	812	3200	0.300 *	-3	809	3200	0.299 *	
SB Right	131	0	0.000	0	131	0	0.000	0	131	0	0.000	18	0	149	0	0.000	0	149	0	0.000	
EB Left	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	11	0	90	1600	0.056 *	0	90	1600	0.056 *	
EB Thru	548	3200	0.195	-2	546	3200	0.195	0	546	3200	0.195	76	6	630	3200	0.224	-2	628	3200	0.224	
EB Right	77	0	0.000	0	77	0	0.000	0	77	0	0.000	11	0	88	0	0.000	0	88	0	0.000	
WB Left	109	1600	0.068	0	109	1600	0.068	0	109	1600	0.068	16	2	127	1600	0.079	0	127	1600	0.079	
WB Thru	747	3200	0.249 *	-2	745	3200	0.248 *	0	745	3200	0.248 *	103	5	855	3200	0.284 *	-2	853	3200	0.284 *	
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	6	0	55	0	0.000	0	55	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.775				0.773				0.773				0.883				0.881		
LOS			C				C				C				D				D		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU9

Azusa Avenue @ Badillo Street
 Peak hr: PM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024
With Planning Areas 3 and 4 Only

Date: 6/23/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT (PA 3 & 4)				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT (PA 3 & 4)			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	128	1600	0.080 *	2	130	1600	0.081 *	0	130	1600	0.081 *	18	0	146	1600	0.091 *	2	148	1600	0.093 *
NB Thru	792	3200	0.267	5	797	3200	0.268	0	797	3200	0.268	109	18	919	3200	0.309	5	924	3200	0.311
NB Right	62	0	0.000	0	62	0	0.000	0	62	0	0.000	8	1	71	0	0.000	0	71	0	0.000
SB Left	112	1600	0.070	0	112	1600	0.070	0	112	1600	0.070	16	0	128	1600	0.080	0	128	1600	0.080
SB Thru	871	3200	0.294 *	8	879	3200	0.297 *	0	879	3200	0.297 *	120	18	1009	3200	0.340 *	8	1017	3200	0.343 *
SB Right	69	0	0.000	1	70	0	0.000	0	70	0	0.000	10	0	79	0	0.000	1	80	0	0.000
EB Left	126	1600	0.079	0	126	1600	0.079	0	126	1600	0.079	17	0	143	1600	0.089	0	143	1600	0.089
EB Thru	870	3200	0.308 *	7	877	3200	0.310 *	0	877	3200	0.310 *	120	7	997	3200	0.353 *	7	1004	3200	0.355 *
EB Right	115	0	0.000	0	115	0	0.000	0	115	0	0.000	16	0	131	0	0.000	0	131	0	0.000
WB Left	156	1600	0.098 *	0	156	1600	0.098 *	0	156	1600	0.098 *	22	1	179	1600	0.112 *	0	179	1600	0.112 *
WB Thru	493	3200	0.169	6	499	3200	0.171	0	499	3200	0.171	68	8	569	3200	0.195	6	575	3200	0.197
WB Right	48	0	0.000	0	48	0	0.000	0	48	0	0.000	6	0	54	0	0.000	0	54	0	0.000
Yellow Allowance	0.050 *			0.050 *				0.050 *				0.050 *					0.050 *			
ICU	0.829			0.835				0.835				0.946					0.952			
LOS	D			D				D				E					E			

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU10

Azusa Avenue @ Puente Avenue
Peak hr: AM
Annual Growth: 1.00%

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT						
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio			
NB Left	109	1600	0.068	0	109	1600	0.068	0	109	1600	0.068	6	0	115	1600	0.072	0	115	1600	0.072			
NB Thru	1119	3200	0.385 *	7	1126	3200	0.388 *	0	1126	3200	0.388 *	57	13	1189	3200	0.411 *	7	1196	3200	0.413 *			
NB Right	114	0	0.000	0	114	0	0.000	0	114	0	0.000	6	6	126	0	0.000	0	126	0	0.000			
SB Left	177	1600	0.111 *	4	181	1600	0.113 *	0	181	1600	0.113 *	9	6	192	1600	0.120 *	4	196	1600	0.123 *			
SB Thru	802	3200	0.251	8	810	3200	0.253	0	810	3200	0.253	41	15	858	3200	0.268	8	866	3200	0.271			
SB Right	58	1600	0.036	0	58	1600	0.036	0	58	1600	0.036	3	0	61	1600	0.038	0	61	1600	0.038			
EB Left	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	4	0	81	1600	0.051	0	81	1600	0.051			
EB Thru	355	1600	0.222 *	0	355	1600	0.222 *	0	355	1600	0.222 *	18	9	382	1600	0.239 *	0	382	1600	0.239 *			
EB Right	95	1600	0.059	0	95	1600	0.059	0	95	1600	0.059	5	0	100	1600	0.063	0	100	1600	0.063			
WB Left	86	1600	0.054 *	0	86	1600	0.054 *	0	86	1600	0.054 *	4	6	96	1600	0.060 *	0	96	1600	0.060 *			
WB Thru	478	3200	0.176	0	478	3200	0.177	0	478	3200	0.177	24	10	512	3200	0.190	0	512	3200	0.191			
WB Right	86	0	0.000	3	89	0	0.000	0	89	0	0.000	4	6	96	0	0.000	3	99	0	0.000			
Yellow Allowance				0.100 *				0.100 *				0.100 *				0.100 *				0.100 *			
ICU				0.872				0.876				0.876				0.930				0.934			
LOS				D				D				D				E				E			

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU10

Azusa Avenue @ Puente Avenue
Peak hr: PM
Annual Growth: 1.00%

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	76	1600	0.048 *	0	76	1600	0.048 *	0	76	1600	0.048 *	4	0	80	1600	0.050 *	0	80	1600	0.050 *
NB Thru	821	3200	0.279	6	827	3200	0.281	0	827	3200	0.281	42	15	878	3200	0.300	6	884	3200	0.302
NB Right	72	0	0.000	0	72	0	0.000	0	72	0	0.000	4	5	81	0	0.000	0	81	0	0.000
SB Left	91	1600	0.057	2	93	1600	0.058	0	93	1600	0.058	5	5	101	1600	0.063	2	103	1600	0.064
SB Thru	1173	3200	0.367 *	5	1178	3200	0.368 *	0	1178	3200	0.368 *	60	14	1247	3200	0.390 *	5	1252	3200	0.391 *
SB Right	36	1600	0.023	0	36	1600	0.023	0	36	1600	0.023	2	0	38	1600	0.024	0	38	1600	0.024
EB Left	158	1600	0.099	0	158	1600	0.099	0	158	1600	0.099	8	0	166	1600	0.104	0	166	1600	0.104
EB Thru	540	1600	0.338 *	0	540	1600	0.338 *	0	540	1600	0.338 *	28	10	578	1600	0.361 *	0	578	1600	0.361 *
EB Right	114	1600	0.071	0	114	1600	0.071	0	114	1600	0.071	6	0	120	1600	0.075	0	120	1600	0.075
WB Left	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *	4	5	91	1600	0.057 *	0	91	1600	0.057 *
WB Thru	234	3200	0.087	0	234	3200	0.088	0	234	3200	0.088	12	8	254	3200	0.095	0	254	3200	0.096
WB Right	43	0	0.000	3	46	0	0.000	0	46	0	0.000	2	5	50	0	0.000	3	53	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *	
ICU			0.903				0.904				0.904				0.958				0.959	
LOS			E				E				E				E				E	

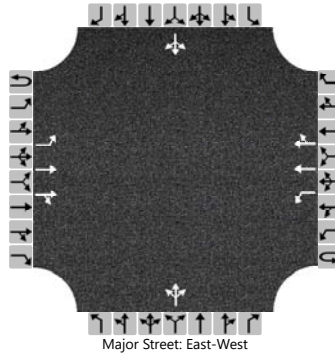
- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/14/2020	East/West Street	Badillo Street
Analysis Year	2019	North/South Street	Armel Drive
Time Analyzed	Existing AM Pear Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	15	673	53	0	7	849	4		6	3	21		2	10	15
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

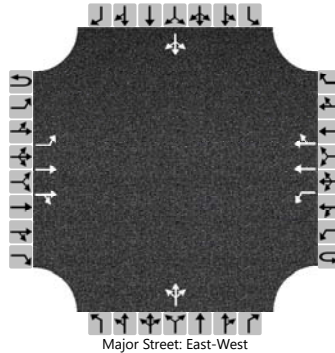
Flow Rate, v (veh/h)		16				8					33				29	
Capacity, c (veh/h)		727				820					233				156	
v/c Ratio		0.02				0.01					0.14				0.19	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.7	
Control Delay (s/veh)		10.1				9.4					22.9				33.3	
Level of Service (LOS)		B				A					C				D	
Approach Delay (s/veh)	0.2				0.1				22.9				33.3			
Approach LOS									C				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/14/2020	East/West Street	Badillo Street
Analysis Year	2019	North/South Street	Armel Drive
Time Analyzed	Existing PM Pear Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	26	952	27	0	9	636	3		4	4	12		2	4	11
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

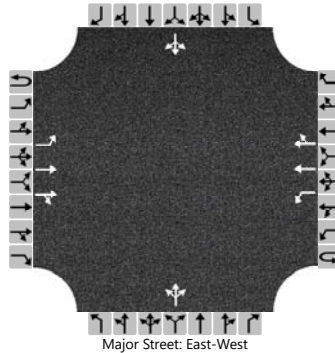
Flow Rate, v (veh/h)		28				10					22				18	
Capacity, c (veh/h)		890				645					153				185	
v/c Ratio		0.03				0.02					0.14				0.10	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.3	
Control Delay (s/veh)		9.2				10.7					32.3				26.6	
Level of Service (LOS)		A				B					D				D	
Approach Delay (s/veh)	0.2				0.1				32.3				26.6			
Approach LOS									D				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/14/2020	East/West Street	Badillo Street
Analysis Year	2019	North/South Street	Armel Drive
Time Analyzed	Existing + Proj AM PH	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	15	682	53	0	7	857	4		6	3	21		2	10	15
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		16				8					33				29	
Capacity, c (veh/h)		721				813					228				153	
v/c Ratio		0.02				0.01					0.14				0.19	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.7	
Control Delay (s/veh)		10.1				9.5					23.4				34.1	
Level of Service (LOS)		B				A					C				D	
Approach Delay (s/veh)	0.2				0.1				23.4				34.1			
Approach LOS									C				D			

HCS7 Two-Way Stop-Control Report

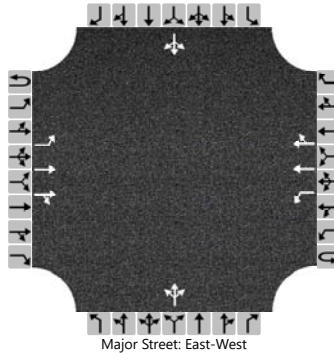
General Information

Analyst	DR
Agency/Co.	LLG Engineers
Date Performed	4/14/2020
Analysis Year	2019
Time Analyzed	Exist + Proj PM Pear Hour
Intersection Orientation	East-West
Project Description	Covina Bowl Project/1-194348-1

Site Information

Intersection	Int-11
Jurisdiction	Covina
East/West Street	Badillo Street
North/South Street	Armel Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	26	958	27	0	9	643	3		4	4	12		2	4	11
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		28				10					22				18	
Capacity, c (veh/h)		884				641					151				182	
v/c Ratio		0.03				0.02					0.14				0.10	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.3	
Control Delay (s/veh)		9.2				10.7					32.9				27.0	
Level of Service (LOS)		A				B					D				D	
Approach Delay (s/veh)	0.2				0.1				32.9				27.0			
Approach LOS									D				D			

HCS7 Two-Way Stop-Control Report

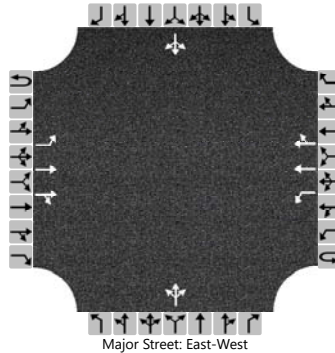
General Information

Analyst	DR
Agency/Co.	LLG Engineers
Date Performed	4/14/2020
Analysis Year	2024
Time Analyzed	Future Pre-Proj AM PH
Intersection Orientation	East-West
Project Description	Covina Bowl Project/1-194348-1

Site Information

Intersection	Int-11
Jurisdiction	Covina
East/West Street	Badillo Street
North/South Street	Armel Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	16	708	55	0	7	890	4		6	3	22		2	10	16
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

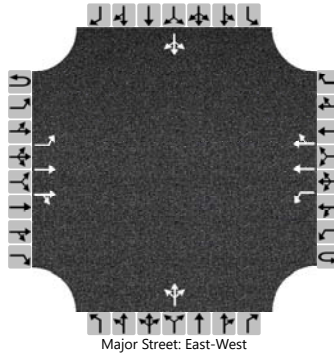
Flow Rate, v (veh/h)		17				8					34				30	
Capacity, c (veh/h)		699				792					215				143	
v/c Ratio		0.02				0.01					0.16				0.21	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.8	
Control Delay (s/veh)		10.3				9.6					24.8				36.7	
Level of Service (LOS)		B				A					C				E	
Approach Delay (s/veh)	0.2				0.1				24.8				36.7			
Approach LOS									C				E			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/14/2020	East/West Street	Badillo Street
Analysis Year	2024	North/South Street	Armel Drive
Time Analyzed	Future Pre-Proj PM PH	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	27	999	28	0	9	671	3		4	4	12		2	4	11
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

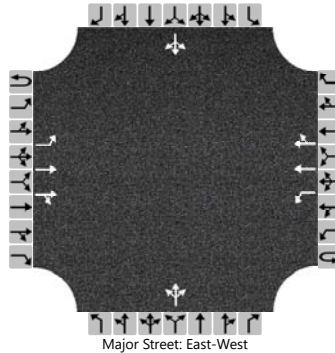
Flow Rate, v (veh/h)		29				10					22				18	
Capacity, c (veh/h)		861				616					136				165	
v/c Ratio		0.03				0.02					0.16				0.11	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.4	
Control Delay (s/veh)		9.3				10.9					36.4				29.6	
Level of Service (LOS)		A				B					E				D	
Approach Delay (s/veh)	0.2				0.1				36.4				29.6			
Approach LOS									E				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/14/2020	East/West Street	Badillo Street
Analysis Year	2024	North/South Street	Armel Drive
Time Analyzed	Future + Project AM PH	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	16	717	55	0	7	898	4		6	3	22		2	10	16
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		17				8					34				30	
Capacity, c (veh/h)		694				785					210				140	
v/c Ratio		0.03				0.01					0.16				0.22	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.6				0.8	
Control Delay (s/veh)		10.3				9.6					25.4				37.7	
Level of Service (LOS)		B				A					D				E	
Approach Delay (s/veh)	0.2				0.1				25.4				37.7			
Approach LOS									D				E			

HCS7 Two-Way Stop-Control Report

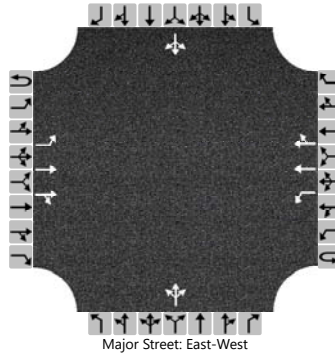
General Information

Analyst	DR
Agency/Co.	LLG Engineers
Date Performed	4/14/2020
Analysis Year	2024
Time Analyzed	Future W-Project PM PH
Intersection Orientation	East-West
Project Description	Covina Bowl Project/1-194348-1

Site Information

Intersection	Int-11
Jurisdiction	Covina
East/West Street	Badillo Street
North/South Street	Armel Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	27	1005	28	0	9	678	3		4	4	12		2	4	11
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		29				10					22				18	
Capacity, c (veh/h)		856				612					134				162	
v/c Ratio		0.03				0.02					0.16				0.11	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.6				0.4	
Control Delay (s/veh)		9.4				11.0					37.1				30.1	
Level of Service (LOS)		A				B					E				D	
Approach Delay (s/veh)	0.2				0.1				37.1				30.1			
Approach LOS									E				D			

LINSCOTT, LAW & GREENSPAN, ENGINEERS
600 S. Lake Avenue, Ste 500, Pasadena 91106
(626) 796.2322 Fax (626) 792.0941

N-S St: Hollenbeck Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU12

INTERSECTION CAPACITY UTILIZATION

Hollenbeck Avenue @ San Bernardino Road
Peak hr: AM
Annual Growth: 1.00%

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT					2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	63	1600	0.039	0	63	1600	0.039	0	63	1600	0.039	3	0	66	1600	0.041	0	66	1600	0.041
NB Thru	462	1600	0.299 *	0	462	1600	0.299 *	0	462	1600	0.299 *	24	16	502	1600	0.325 *	0	502	1600	0.325 *
NB Right	17	0	0.000	0	17	0	0.000	0	17	0	0.000	1	0	18	0	0.000	0	18	0	0.000
SB Left	87	1600	0.054 *	0	87	1600	0.054 *	0	87	1600	0.054 *	4	0	91	1600	0.057 *	0	91	1600	0.057 *
SB Thru	497	1600	0.311	0	497	1600	0.311	0	497	1600	0.311	25	11	533	1600	0.333	0	533	1600	0.333
SB Right	355	1600	0.222	4	359	1600	0.224	0	359	1600	0.224	18	0	373	1600	0.233	4	377	1600	0.236
EB Left	121	1600	0.076 *	4	125	1600	0.078 *	0	125	1600	0.078 *	6	0	127	1600	0.079 *	4	131	1600	0.082 *
EB Thru	228	1600	0.143	5	233	1600	0.146	0	233	1600	0.146	12	24	264	1600	0.165	5	269	1600	0.168
EB Right	23	1600	0.014	0	23	1600	0.014	0	23	1600	0.014	1	0	24	1600	0.015	0	24	1600	0.015
WB Left	28	1600	0.018	0	28	1600	0.018	0	28	1600	0.018	1	0	29	1600	0.018	0	29	1600	0.018
WB Thru	402	1600	0.292 *	4	406	1600	0.294 *	0	406	1600	0.294 *	21	30	453	1600	0.326 *	4	457	1600	0.328 *
WB Right	65	0	0.000	0	65	0	0.000	0	65	0	0.000	3	0	68	0	0.000	0	68	0	0.000
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *	
ICU			0.771				0.776				0.776				0.837				0.842	
LOS			C				C				C				D				D	

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Hollenbeck Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU12

Hollenbeck Avenue @ San Bernardino Road
 Peak hr: PM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	28	1600	0.018	0	28	1600	0.018	0	28	1600	0.018	1	0	29	1600	0.018	0	29	1600	0.018	
NB Thru	608	1600	0.392 *	0	608	1600	0.392 *	0	608	1600	0.392 *	31	12	651	1600	0.419 *	0	651	1600	0.419 *	
NB Right	19	0	0.000	0	19	0	0.000	0	19	0	0.000	1	0	20	0	0.000	0	20	0	0.000	
SB Left	57	1600	0.036 *	0	57	1600	0.036 *	0	57	1600	0.036 *	3	0	60	1600	0.038 *	0	60	1600	0.038 *	
SB Thru	440	1600	0.275	0	440	1600	0.275	0	440	1600	0.275	22	17	479	1600	0.299	0	479	1600	0.299	
SB Right	153	1600	0.096	3	156	1600	0.098	0	156	1600	0.098	8	0	161	1600	0.101	3	164	1600	0.103	
EB Left	192	1600	0.120 *	3	195	1600	0.122 *	0	195	1600	0.122 *	10	0	202	1600	0.126 *	3	205	1600	0.128 *	
EB Thru	419	1600	0.262	3	422	1600	0.264	0	422	1600	0.264	21	36	476	1600	0.298	3	479	1600	0.299	
EB Right	67	1600	0.042	0	67	1600	0.042	0	67	1600	0.042	3	0	70	1600	0.044	0	70	1600	0.044	
WB Left	31	1600	0.019	0	31	1600	0.019	0	31	1600	0.019	2	0	33	1600	0.021	0	33	1600	0.021	
WB Thru	311	1600	0.249 *	4	315	1600	0.252 *	0	315	1600	0.252 *	16	33	360	1600	0.283 *	4	364	1600	0.285 *	
WB Right	88	0	0.000	0	88	0	0.000	0	88	0	0.000	4	0	92	0	0.000	0	92	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.847				0.851				0.851				0.916				0.920		
LOS			D				D				D				E				E		

- * Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Hollenbeck Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU13

Hollenbeck Avenue @ Badillo Street
Peak hr: AM
Annual Growth: 1.00%

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Added	Total	2	V/C	Added	Total	2	V/C	
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Amb. Grow.	Rel. Proj.	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	
NB Left	61	1600	0.038	4	65	1600	0.041	0	65	1600	0.041	3	0	64	1600	0.040	4	68	1600	0.043	
NB Thru	467	1600	0.292 *	0	467	1600	0.292 *	0	467	1600	0.292 *	24	16	507	1600	0.317 *	0	507	1600	0.317 *	
NB Right	107	1600	0.067	0	107	1600	0.067	0	107	1600	0.067	5	0	112	1600	0.070	0	112	1600	0.070	
SB Left	35	1600	0.022 *	0	35	1600	0.022 *	0	35	1600	0.022 *	2	0	37	1600	0.023 *	0	37	1600	0.023 *	
SB Thru	403	1600	0.261	0	403	1600	0.261	0	403	1600	0.261	21	11	435	1600	0.282	0	435	1600	0.282	
SB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	1	0	16	0	0.000	0	16	0	0.000	
EB Left	76	1600	0.048	0	76	1600	0.048	0	76	1600	0.048	4	0	80	1600	0.050	0	80	1600	0.050	
EB Thru	565	3200	0.214 *	5	570	3200	0.217 *	0	570	3200	0.217 *	29	8	602	3200	0.228 *	5	607	3200	0.230 *	
EB Right	120	0	0.000	4	124	0	0.000	0	124	0	0.000	6	0	126	0	0.000	4	130	0	0.000	
WB Left	126	1600	0.079 *	0	126	1600	0.079 *	0	126	1600	0.079 *	6	0	132	1600	0.083 *	0	132	1600	0.083 *	
WB Thru	543	3200	0.186	4	547	3200	0.187	0	547	3200	0.187	28	7	578	3200	0.198	4	582	3200	0.199	
WB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	3	0	55	0	0.000	0	55	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.657				0.659				0.659				0.700				0.703		
LOS			B				B				B				B				C		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Hollenbeck Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU13

Hollenbeck Avenue @ Badillo Street
 Peak hr: PM
 Annual Growth: 1.00%

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2024

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2024 FUTURE PRE-PROJECT						2024 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	67	1600	0.042	3	70	1600	0.044	0	70	1600	0.044	3	0	70	1600	0.044	3	73	1600	0.046	
NB Thru	492	1600	0.308 *	0	492	1600	0.308 *	0	492	1600	0.308 *	25	12	529	1600	0.331 *	0	529	1600	0.331 *	
NB Right	115	1600	0.072	0	115	1600	0.072	0	115	1600	0.072	6	0	121	1600	0.076	0	121	1600	0.076	
SB Left	44	1600	0.028 *	0	44	1600	0.028 *	0	44	1600	0.028 *	2	0	46	1600	0.029 *	0	46	1600	0.029 *	
SB Thru	357	1600	0.234	0	357	1600	0.234	0	357	1600	0.234	18	17	392	1600	0.256	0	392	1600	0.256	
SB Right	17	0	0.000	0	17	0	0.000	0	17	0	0.000	1	0	18	0	0.000	0	18	0	0.000	
EB Left	126	1600	0.079	0	126	1600	0.079	0	126	1600	0.079	6	0	132	1600	0.083	0	132	1600	0.083	
EB Thru	691	3200	0.244 *	3	694	3200	0.246 *	0	694	3200	0.246 *	35	8	734	3200	0.259 *	3	737	3200	0.261 *	
EB Right	91	0	0.000	3	94	0	0.000	0	94	0	0.000	5	0	96	0	0.000	3	99	0	0.000	
WB Left	123	1600	0.077 *	0	123	1600	0.077 *	0	123	1600	0.077 *	6	0	129	1600	0.081 *	0	129	1600	0.081 *	
WB Thru	411	3200	0.143	4	415	3200	0.144	0	415	3200	0.144	21	9	441	3200	0.153	4	445	3200	0.154	
WB Right	46	0	0.000	0	46	0	0.000	0	46	0	0.000	2	0	48	0	0.000	0	48	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.706				0.708				0.708				0.749				0.751		
LOS			C				C				C				C				C		

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Cypress Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU1

Lark Ellen Avenue @ Cypress Street
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	107	1600	0.067 *	4	111	1600	0.069 *	0	111	1600	0.069 *	14	0	121	1600	0.076 *	4	125	1600	0.078 *
NB Thru	409	3200	0.151	3	412	3200	0.152	0	412	3200	0.152	57	4	470	3200	0.173	3	473	3200	0.174
NB Right	73	0	0.000	0	73	0	0.000	0	73	0	0.000	10	0	83	0	0.000	0	83	0	0.000
SB Left	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	11	1	89	1600	0.056	0	89	1600	0.056
SB Thru	460	3200	0.172 *	4	464	3200	0.173 *	0	464	3200	0.173 *	63	4	527	3200	0.197 *	4	531	3200	0.198 *
SB Right	89	0	0.000	0	89	0	0.000	0	89	0	0.000	13	0	102	0	0.000	0	102	0	0.000
EB Left	60	1600	0.038 *	0	60	1600	0.038 *	0	60	1600	0.038 *	8	0	68	1600	0.043 *	0	68	1600	0.043 *
EB Thru	437	3200	0.168	0	437	3200	0.169	0	437	3200	0.169	60	14	511	3200	0.195	0	511	3200	0.197
EB Right	100	0	0.000	4	104	0	0.000	0	104	0	0.000	14	0	114	0	0.000	4	118	0	0.000
WB Left	239	1600	0.149	0	239	1600	0.149	0	239	1600	0.149	33	0	272	1600	0.170	0	272	1600	0.170
WB Thru	952	3200	0.321 *	0	952	3200	0.321 *	0	952	3200	0.321 *	132	9	1093	3200	0.368 *	0	1093	3200	0.368 *
WB Right	74	0	0.000	0	74	0	0.000	0	74	0	0.000	10	2	86	0	0.000	0	86	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *
ICU			0.697				0.700				0.700					0.783				0.787
LOS			B				B				B					C				C

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Cypress Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU1

Lark Ellen Avenue @ Cypress Street
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	84	1600	0.053	7	91	1600	0.057	0	91	1600	0.057	11	0	95	1600	0.059	7	102	1600	0.064
NB Thru	472	3200	0.180 *	6	478	3200	0.182 *	0	478	3200	0.182 *	65	3	540	3200	0.206 *	6	546	3200	0.208 *
NB Right	104	0	0.000	1	105	0	0.000	0	105	0	0.000	14	0	118	0	0.000	1	119	0	0.000
SB Left	71	1600	0.044 *	0	71	1600	0.044 *	0	71	1600	0.044 *	10	3	84	1600	0.053 *	0	84	1600	0.053 *
SB Thru	441	3200	0.154	5	446	3200	0.156	0	446	3200	0.156	60	3	504	3200	0.176	5	509	3200	0.178
SB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	8	0	60	0	0.000	0	60	0	0.000
EB Left	73	1600	0.046	0	73	1600	0.046	0	73	1600	0.046	10	0	83	1600	0.052	0	83	1600	0.052
EB Thru	1066	3200	0.370 *	0	1066	3200	0.372 *	0	1066	3200	0.372 *	147	13	1226	3200	0.425 *	0	1226	3200	0.427 *
EB Right	118	0	0.000	6	124	0	0.000	0	124	0	0.000	16	0	134	0	0.000	6	140	0	0.000
WB Left	113	1600	0.071 *	0	113	1600	0.071 *	0	113	1600	0.071 *	16	0	129	1600	0.081 *	0	129	1600	0.081 *
WB Thru	416	3200	0.146	0	416	3200	0.146	0	416	3200	0.146	57	17	490	3200	0.172	0	490	3200	0.172
WB Right	51	0	0.000	0	51	0	0.000	0	51	0	0.000	7	2	60	0	0.000	0	60	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *
ICU			0.765				0.769				0.769					0.864				0.868
LOS			C				C				C					D				D

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU2

Lark Ellen Avenue @ San Bernardino Road
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	86	1600	0.054	7	93	1600	0.058	0	93	1600	0.058	11	2	99	1600	0.062	7	106	1600	0.066	
NB Thru	522	3200	0.183 *	0	522	3200	0.186 *	0	522	3200	0.186 *	73	4	599	3200	0.209 *	0	599	3200	0.213 *	
NB Right	63	0	0.000	11	74	0	0.000	0	74	0	0.000	8	0	71	0	0.000	11	82	0	0.000	
SB Left	176	1600	0.110 *	7	183	1600	0.114 *	0	183	1600	0.114 *	24	0	200	1600	0.125 *	7	207	1600	0.129 *	
SB Thru	483	3200	0.209	0	483	3200	0.209	0	483	3200	0.209	67	4	554	3200	0.239	0	554	3200	0.239	
SB Right	185	0	0.000	0	185	0	0.000	0	185	0	0.000	25	0	210	0	0.000	0	210	0	0.000	
EB Left	85	1600	0.053 *	0	85	1600	0.053 *	0	85	1600	0.053 *	11	0	96	1600	0.060 *	0	96	1600	0.060 *	
EB Thru	346	3200	0.128	4	350	3200	0.129	0	350	3200	0.129	48	20	414	3200	0.153	4	418	3200	0.154	
EB Right	64	0	0.000	0	64	0	0.000	0	64	0	0.000	9	2	75	0	0.000	0	75	0	0.000	
WB Left	95	1600	0.059	-3	92	1600	0.058	0	92	1600	0.058	13	0	108	1600	0.068	-3	105	1600	0.066	
WB Thru	631	3200	0.243 *	-1	630	3200	0.245 *	0	630	3200	0.245 *	87	23	741	3200	0.283 *	-1	740	3200	0.285 *	
WB Right	146	0	0.000	7	153	0	0.000	0	153	0	0.000	20	0	166	0	0.000	7	173	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.639				0.648				0.648				0.728				0.738		
LOS			B				B				B				C				C		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counter
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU2

Lark Ellen Avenue @ San Bernardino Road
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Ref. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	75	1600	0.047	4	79	1600	0.049	0	79	1600	0.049	11	1	87	1600	0.054	4	91	1600	0.057
NB Thru	592	3200	0.219 *	1	593	3200	0.224 *	0	593	3200	0.224 *	82	3	677	3200	0.250 *	1	678	3200	0.256 *
NB Right	108	0	0.000	17	125	0	0.000	0	125	0	0.000	15	0	123	0	0.000	17	140	0	0.000
SB Left	107	1600	0.067 *	12	119	1600	0.074 *	0	119	1600	0.074 *	14	0	121	1600	0.076 *	12	133	1600	0.083 *
SB Thru	512	3200	0.175	0	512	3200	0.175	0	512	3200	0.175	71	3	586	3200	0.200	0	586	3200	0.200
SB Right	48	0	0.000	0	48	0	0.000	0	48	0	0.000	6	0	54	0	0.000	0	54	0	0.000
EB Left	95	1600	0.059	0	95	1600	0.059	0	95	1600	0.059	13	0	108	1600	0.068	0	108	1600	0.068
EB Thru	766	3200	0.280 *	9	775	3200	0.283 *	0	775	3200	0.283 *	106	29	901	3200	0.328 *	9	910	3200	0.331 *
EB Right	129	0	0.000	0	129	0	0.000	0	129	0	0.000	18	1	148	0	0.000	0	148	0	0.000
WB Left	81	1600	0.051 *	10	91	1600	0.057 *	0	91	1600	0.057 *	11	0	92	1600	0.058 *	10	102	1600	0.064 *
WB Thru	354	3200	0.142	5	359	3200	0.148	0	359	3200	0.148	49	28	431	3200	0.170	5	436	3200	0.176
WB Right	100	0	0.000	13	113	0	0.000	0	113	0	0.000	14	0	114	0	0.000	13	127	0	0.000
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *	
ICU			0.666				0.688				0.688				0.761				0.783	
LOS			B				B				B				C				C	

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counter
2 Capacity expressed in veh/hour of green

LINSCOTT, LAW & GREENSPAN, ENGINEERS
600 S. Lake Avenue, Ste 500, Pasadena 91106
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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU3

Lark Ellen Avenue @ Badillo Street
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT				
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	74	1600	0.046	0	74	1600	0.046	0	74	1600	0.046	10	2	86	1600	0.054	0	86	1600	0.054	
NB Thru	523	3200	0.185 *	6	529	3200	0.187 *	0	529	3200	0.187 *	73	5	601	3200	0.212 *	6	607	3200	0.214	
NB Right	68	0	0.000	0	68	0	0.000	0	68	0	0.000	9	0	77	0	0.000	0	77	0	0.000	
SB Left	63	1600	0.039 *	0	63	1600	0.039 *	0	63	1600	0.039 *	8	0	71	1600	0.044 *	0	71	1600	0.044	
SB Thru	466	3200	0.156	-2	464	3200	0.155	0	464	3200	0.155	65	5	536	3200	0.179	-2	534	3200	0.178	
SB Right	33	0	0.000	-1	32	0	0.000	0	32	0	0.000	5	0	38	0	0.000	-1	37	0	0.000	
EB Left	43	1600	0.027 *	5	48	1600	0.030 *	0	48	1600	0.030 *	6	0	49	1600	0.031 *	5	54	1600	0.034	
EB Thru	557	3200	0.202	0	557	3200	0.202	0	557	3200	0.202	77	6	640	3200	0.233	0	640	3200	0.233	
EB Right	89	0	0.000	0	89	0	0.000	0	89	0	0.000	13	2	104	0	0.000	0	104	0	0.000	
WB Left	195	1600	0.122	9	204	1600	0.128	0	204	1600	0.128	27	0	222	1600	0.139	9	231	1600	0.144	
WB Thru	875	3200	0.299 *	6	881	3200	0.303 *	0	881	3200	0.303 *	121	5	1001	3200	0.342 *	6	1007	3200	0.346	
WB Right	81	0	0.000	8	89	0	0.000	0	89	0	0.000	11	0	92	0	0.000	8	100	0	0.000	
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *		
ICU			0.650				0.659				0.659				0.728				0.738		
LOS			B				B				B				C				C		

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU3

Lark Ellen Avenue @ Badillo Street
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	52	1600	0.033	0	52	1600	0.033	0	52	1600	0.033	8	1	61	1600	0.038	0	61	1600	0.038
NB Thru	566	3200	0.210 *	10	576	3200	0.213 *	0	576	3200	0.213 *	78	5	649	3200	0.240 *	10	659	3200	0.243
NB Right	106	0	0.000	0	106	0	0.000	0	106	0	0.000	14	0	120	0	0.000	0	120	0	0.000
SB Left	62	1600	0.039 *	0	62	1600	0.039 *	0	62	1600	0.039 *	8	0	70	1600	0.044 *	0	70	1600	0.044
SB Thru	570	3200	0.192	6	576	3200	0.195	0	576	3200	0.195	79	5	654	3200	0.220	6	660	3200	0.223
SB Right	44	0	0.000	4	48	0	0.000	0	48	0	0.000	6	0	50	0	0.000	4	54	0	0.000
EB Left	62	1600	0.039	7	69	1600	0.043	0	69	1600	0.043	8	0	70	1600	0.044	7	77	1600	0.048
EB Thru	861	3200	0.303 *	0	861	3200	0.303 *	0	861	3200	0.303 *	119	7	987	3200	0.347 *	0	987	3200	0.347
EB Right	108	0	0.000	0	108	0	0.000	0	108	0	0.000	15	1	124	0	0.000	0	124	0	0.000
WB Left	120	1600	0.075 *	8	128	1600	0.080 *	0	128	1600	0.080 *	16	0	136	1600	0.085 *	8	144	1600	0.090
WB Thru	424	3200	0.153	4	428	3200	0.156	0	428	3200	0.156	59	8	491	3200	0.177	4	495	3200	0.180
WB Right	65	0	0.000	6	71	0	0.000	0	71	0	0.000	9	0	74	0	0.000	6	80	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *	0.100
ICU			0.727				0.735				0.735				0.816				0.824	
LOS			C				C				C				D				D	

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU4

Lark Ellen Avenue @ Puente Avenue
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	158	1600	0.099 *	0	158	1600	0.099 *	0	158	1600	0.099 *	22	2	182	1600	0.114 *	0	182	1600	0.114 *
NB Thru	596	3200	0.199	4	600	3200	0.201	0	600	3200	0.201	82	5	683	3200	0.228	4	687	3200	0.230
NB Right	42	0	0.000	0	42	0	0.000	0	42	0	0.000	6	0	48	0	0.000	0	48	0	0.000
SB Left	72	1600	0.045	0	72	1600	0.045	0	72	1600	0.045	10	2	84	1600	0.053	0	84	1600	0.053
SB Thru	511	3200	0.198 *	3	514	3200	0.199 *	0	514	3200	0.199 *	71	5	587	3200	0.227 *	3	590	3200	0.228 *
SB Right	121	0	0.000	3	124	0	0.000	0	124	0	0.000	17	0	138	0	0.000	3	141	0	0.000
EB Left	78	1600	0.049 *	4	82	1600	0.051 *	0	82	1600	0.051 *	11	0	89	1600	0.056 *	4	93	1600	0.058 *
EB Thru	325	3200	0.134	0	325	3200	0.134	0	325	3200	0.134	45	7	377	3200	0.155	0	377	3200	0.155
EB Right	103	0	0.000	0	103	0	0.000	0	103	0	0.000	14	2	119	0	0.000	0	119	0	0.000
WB Left	49	1600	0.031	0	49	1600	0.031	0	49	1600	0.031	6	0	55	1600	0.034	0	55	1600	0.034
WB Thru	515	3200	0.179 *	0	515	3200	0.179 *	0	515	3200	0.179 *	71	8	594	3200	0.207 *	0	594	3200	0.207 *
WB Right	59	0	0.000	0	59	0	0.000	0	59	0	0.000	8	2	69	0	0.000	0	69	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *	
ICU			0.624				0.629				0.629				0.703				0.708	
LOS			B				B				B				C				C	

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
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INTERSECTION CAPACITY UTILIZATION

N-S St: Lark Ellen Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU4

Lark Ellen Avenue @ Puente Avenue
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	75	1600	0.047 *	0	75	1600	0.047 *	0	75	1600	0.047 *	11	1	87	1600	0.054 *	0	87	1600	0.054 *
NB Thru	706	3200	0.237	5	711	3200	0.238	0	711	3200	0.238	98	4	808	3200	0.271	5	813	3200	0.272
NB Right	51	0	0.000	0	51	0	0.000	0	51	0	0.000	7	0	58	0	0.000	0	58	0	0.000
SB Left	69	1600	0.043	1	70	1600	0.044	0	70	1600	0.044	10	2	81	1600	0.051	1	82	1600	0.051
SB Thru	759	3200	0.251 *	6	765	3200	0.255 *	0	765	3200	0.255 *	105	4	868	3200	0.287 *	6	874	3200	0.291 *
SB Right	44	0	0.000	6	50	0	0.000	0	50	0	0.000	6	0	50	0	0.000	6	56	0	0.000
EB Left	79	1600	0.049	5	84	1600	0.053	0	84	1600	0.053	11	0	90	1600	0.056	5	95	1600	0.059
EB Thru	584	3200	0.224 *	0	584	3200	0.224 *	0	584	3200	0.224 *	81	8	673	3200	0.258 *	0	673	3200	0.258 *
EB Right	134	0	0.000	0	134	0	0.000	0	134	0	0.000	19	1	154	0	0.000	0	154	0	0.000
WB Left	33	1600	0.021 *	0	33	1600	0.021 *	0	33	1600	0.021 *	5	0	38	1600	0.024 *	0	38	1600	0.024 *
WB Thru	252	3200	0.096	0	252	3200	0.096	0	252	3200	0.096	35	7	294	3200	0.113	0	294	3200	0.113
WB Right	56	0	0.000	0	56	0	0.000	0	56	0	0.000	8	2	66	0	0.000	0	66	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *					0.100 *				0.100 *
ICU LOS				0.643 B				0.647 B				0.647 B				0.723 C				0.727 C

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Rimsdale Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU5

Rimsdale Avenue @ San Bernardino Road
 Peak hr: AM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	44	0	0.028	-1	43	0	0.027	0	43	0	0.027	6	0	50	0	0.031	-1	49	0	0.031
NB Thru	16	1600	0.061 *	0	16	1600	0.069 *	0	16	1600	0.069 *	2	0	18	1600	0.069 *	0	18	1600	0.078 *
NB Right	37	0	0.000	15	52	0	0.000	0	52	0	0.000	5	0	42	0	0.000	15	57	0	0.000
SB Left	23	1600	0.014 *	0	23	1600	0.014 *	0	23	1600	0.014 *	3	0	26	1600	0.016 *	0	26	1600	0.016 *
SB Thru	31	1600	0.037	0	31	1600	0.037	0	31	1600	0.037	5	0	36	1600	0.042	0	36	1600	0.042
SB Right	28	0	0.000	0	28	0	0.000	0	28	0	0.000	3	0	31	0	0.000	0	31	0	0.000
EB Left	17	1600	0.011 *	0	17	1600	0.011 *	0	17	1600	0.011 *	2	0	19	1600	0.012 *	0	19	1600	0.012 *
EB Thru	478	3200	0.173	0	478	3200	0.173	0	478	3200	0.173	66	18	562	3200	0.203	0	562	3200	0.202
EB Right	77	0	0.000	-3	74	0	0.000	0	74	0	0.000	11	0	88	0	0.000	-3	85	0	0.000
WB Left	82	1600	0.051	12	94	1600	0.059	0	94	1600	0.059	11	0	93	1600	0.058	12	105	1600	0.066
WB Thru	748	3200	0.238 *	2	750	3200	0.239 *	0	750	3200	0.239 *	103	21	872	3200	0.278 *	2	874	3200	0.278 *
WB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	2	0	17	0	0.000	0	17	0	0.000
Yellow Allowance				0.050 *			0.050 *				0.050 *					0.050 *				0.050 *
ICU				0.374			0.383				0.383					0.425				0.434
LOS				A			A				A					A				A

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Rimsdale Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU5

Rimsdale Avenue @ San Bernardino Road
 Peak hr: PM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	68	0	0.043	4	72	0	0.045	0	72	0	0.045	9	0	77	0	0.048	4	81	0	0.051
NB Thru	34	1600	0.133 *	0	34	1600	0.141 *	0	34	1600	0.141 *	5	0	39	1600	0.152 *	0	39	1600	0.160 *
NB Right	111	0	0.000	9	120	0	0.000	0	120	0	0.000	16	0	127	0	0.000	9	136	0	0.000
SB Left	48	1600	0.030 *	0	48	1600	0.030 *	0	48	1600	0.030 *	6	0	54	1600	0.034 *	0	54	1600	0.034 *
SB Thru	27	1600	0.041	0	27	1600	0.041	0	27	1600	0.041	3	0	30	1600	0.046	0	30	1600	0.046
SB Right	38	0	0.000	0	38	0	0.000	0	38	0	0.000	5	0	43	0	0.000	0	43	0	0.000
EB Left	50	1600	0.031	0	50	1600	0.031	0	50	1600	0.031	7	0	57	1600	0.036	0	57	1600	0.036
EB Thru	855	3200	0.296 *	28	883	3200	0.308 *	0	883	3200	0.308 *	119	27	1001	3200	0.346 *	28	1029	3200	0.357 *
EB Right	92	0	0.000	9	101	0	0.000	0	101	0	0.000	13	0	105	0	0.000	9	114	0	0.000
WB Left	56	1600	0.035 *	10	66	1600	0.041 *	0	66	1600	0.041 *	8	0	64	1600	0.040 *	10	74	1600	0.046 *
WB Thru	458	3200	0.154	19	477	3200	0.160	0	477	3200	0.160	63	26	547	3200	0.183	19	566	3200	0.189
WB Right	34	0	0.000	0	34	0	0.000	0	34	0	0.000	5	0	39	0	0.000	0	39	0	0.000
Yellow Allowance			0.050 *				0.050 *				0.050 *					0.050 *				0.050 *
ICU LOS			0.544 A				0.570 A				0.570 A					0.621 B				0.647 B

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Rimsdale Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU6

Rimsdale Avenue @ Badillo Street
 Peak hr: AM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
SB Left	58	0	0.036	19	77	0	0.048	0	77	0	0.048	8	0	66	0	0.041	19	85	0	0.053
SB Thru	0	1600	0.118 *	0	0	1600	0.129 *	0	0	1600	0.129 *	0	0	0	1600	0.134 *	0	0	1600	0.145 *
SB Right	130	0	0.000	-1	129	0	0.000	0	129	0	0.000	18	0	148	0	0.000	-1	147	0	0.000
EB Left	57	1600	0.036 *	0	57	1600	0.036 *	0	57	1600	0.036 *	8	0	65	1600	0.041 *	0	65	1600	0.041 *
EB Thru	671	3200	0.210	0	671	3200	0.210	0	671	3200	0.210	93	6	770	3200	0.241	0	770	3200	0.241
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
WB Thru	1050	3200	0.328 *	4	1054	3200	0.329 *	0	1054	3200	0.329 *	146	5	1201	3200	0.375 *	4	1205	3200	0.377 *
WB Right	50	1600	0.031	11	61	1600	0.038	0	61	1600	0.038	7	0	57	1600	0.036	11	68	1600	0.043
Yellow Allowance				0.050 *			0.050 *	0.050 *			0.050 *					0.050 *				0.050 *
ICU			0.531				0.544				0.544					0.600				0.612
LOS			A				A				A					A				B

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Rimsdale Avenue
 E-W St: Badillo Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU6

Rimsdale Avenue @ Badillo Street
 Peak hr: PM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *
NB Thru	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
NB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
SB Left	71	0	0.044	21	92	0	0.058	0	92	0	0.058	10	0	81	0	0.051	21	102	0	0.064
SB Thru	0	1600	0.079 *	0	0	1600	0.094 *	0	0	1600	0.094 *	0	0	0	1600	0.091 *	0	0	1600	0.105 *
SB Right	56	0	0.000	2	58	0	0.000	0	58	0	0.000	8	0	64	0	0.000	2	66	0	0.000
EB Left	107	1600	0.067	0	107	1600	0.067	0	107	1600	0.067	14	0	121	1600	0.076	0	121	1600	0.076
EB Thru	1048	3200	0.328 *	0	1048	3200	0.328 *	0	1048	3200	0.328 *	144	7	1199	3200	0.375 *	0	1199	3200	0.375 *
EB Right	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0	0.000	0	0	0	0.000
WB Left	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0	0.000 *	0	0	0	0.000 *
WB Thru	623	3200	0.195	10	633	3200	0.198	0	633	3200	0.198	86	8	717	3200	0.224	10	727	3200	0.227
WB Right	53	1600	0.033	14	67	1600	0.042	0	67	1600	0.042	8	0	61	1600	0.038	14	75	1600	0.047
Yellow Allowance	0.050 *			0.050 *				0.050 *				0.050 *					0.050 *			
ICU LOS	0.457 A			0.471 A				0.471 A				0.515 A					0.530 A			

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: Cypress Street
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU7

Azusa Avenue @ Cypress Street
 Peak hr: AM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	114	1600	0.071 *	0	114	1600	0.071 *	0	114	1600	0.071 *	16	0	130	1600	0.081 *	0	130	1600	0.081 *	
NB Thru	733	3200	0.229	6	739	3200	0.231	0	739	3200	0.231	101	11	845	3200	0.264	6	851	3200	0.266	
NB Right	55	1600	0.034	3	58	1600	0.036	0	58	1600	0.036	8	2	65	1600	0.041	3	68	1600	0.043	
SB Left	41	1600	0.026	0	41	1600	0.026	0	41	1600	0.026	6	7	54	1600	0.034	0	54	1600	0.034	
SB Thru	672	3200	0.210 *	6	678	3200	0.212 *	0	678	3200	0.212 *	93	11	776	3200	0.243 *	6	782	3200	0.244 *	
SB Right	263	1600	0.164	0	263	1600	0.164	0	263	1600	0.164	36	0	299	1600	0.187	0	299	1600	0.187	
EB Left	196	1600	0.123 *	0	196	1600	0.123 *	0	196	1600	0.123 *	27	0	223	1600	0.139 *	0	223	1600	0.139 *	
EB Thru	422	3200	0.165	0	422	3200	0.165	0	422	3200	0.165	59	14	495	3200	0.193	0	495	3200	0.193	
EB Right	107	0	0.000	0	107	0	0.000	0	107	0	0.000	14	0	121	0	0.000	0	121	0	0.000	
WB Left	128	1600	0.080	3	131	1600	0.082	0	131	1600	0.082	18	1	147	1600	0.092	3	150	1600	0.094	
WB Thru	602	3200	0.195 *	0	602	3200	0.195 *	0	602	3200	0.195 *	84	11	697	3200	0.228 *	0	697	3200	0.228 *	
WB Right	23	0	0.000	0	23	0	0.000	0	23	0	0.000	3	7	33	0	0.000	0	33	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.649				0.651				0.651				0.741				0.743		
LOS			B				B				B				C				C		

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Cypress Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU7

Azusa Avenue @ Cypress Street
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	96	1600	0.060	0	96	1600	0.060	0	96	1600	0.060	13	0	109	1600	0.068	0	109	1600	0.068	
NB Thru	785	3200	0.245 *	11	796	3200	0.249 *	0	796	3200	0.249 *	109	9	903	3200	0.282 *	11	914	3200	0.286 *	
NB Right	129	1600	0.081	5	134	1600	0.084	0	134	1600	0.084	18	1	148	1600	0.093	5	153	1600	0.096	
SB Left	55	1600	0.034 *	0	55	1600	0.034 *	0	55	1600	0.034 *	8	10	73	1600	0.046 *	0	73	1600	0.046 *	
SB Thru	700	3200	0.219	10	710	3200	0.222	0	710	3200	0.222	97	9	806	3200	0.252	10	816	3200	0.255	
SB Right	163	1600	0.102	0	163	1600	0.102	0	163	1600	0.102	22	0	185	1600	0.116	0	185	1600	0.116	
EB Left	227	1600	0.142	0	227	1600	0.142	0	227	1600	0.142	32	0	259	1600	0.162	0	259	1600	0.162	
EB Thru	959	3200	0.324 *	0	959	3200	0.324 *	0	959	3200	0.324 *	133	14	1106	3200	0.373 *	0	1106	3200	0.373 *	
EB Right	78	0	0.000	0	78	0	0.000	0	78	0	0.000	11	0	89	0	0.000	0	89	0	0.000	
WB Left	97	1600	0.061 *	5	102	1600	0.064 *	0	102	1600	0.064 *	13	2	112	1600	0.070 *	5	117	1600	0.073 *	
WB Thru	405	3200	0.136	0	405	3200	0.136	0	405	3200	0.136	56	18	479	3200	0.164	0	479	3200	0.164	
WB Right	30	0	0.000	0	30	0	0.000	0	30	0	0.000	5	10	45	0	0.000	0	45	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.714				0.721				0.721				0.821				0.828		
LOS			C				C				C				D				D		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU8

Azusa Avenue @ San Bernardino Road
 Peak hr: AM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	110	1600	0.069 *	-1	109	1600	0.068 *	0	109	1600	0.068 *	16	0	126	1600	0.079 *	-1	125	1600	0.078 *
NB Thru	624	3200	0.213	0	624	3200	0.213	0	624	3200	0.213	86	13	723	3200	0.248	0	723	3200	0.248
NB Right	57	0	0.000	0	57	0	0.000	0	57	0	0.000	8	5	70	0	0.000	0	70	0	0.000
SB Left	66	1600	0.041	0	66	1600	0.041	0	66	1600	0.041	9	0	75	1600	0.047	0	75	1600	0.047
SB Thru	687	3200	0.278 *	0	687	3200	0.281 *	0	687	3200	0.281 *	95	12	794	3200	0.320 *	0	794	3200	0.323 *
SB Right	202	0	0.000	9	211	0	0.000	0	211	0	0.000	28	0	230	0	0.000	9	239	0	0.000
EB Left	130	1600	0.081 *	9	139	1600	0.087 *	0	139	1600	0.087 *	18	0	148	1600	0.093 *	9	157	1600	0.098 *
EB Thru	294	3200	0.126	7	301	3200	0.127	0	301	3200	0.127	41	20	355	3200	0.150	7	362	3200	0.151
EB Right	109	0	0.000	-3	106	0	0.000	0	106	0	0.000	16	0	125	0	0.000	-3	122	0	0.000
WB Left	144	1600	0.090	0	144	1600	0.090	0	144	1600	0.090	20	7	171	1600	0.107	0	171	1600	0.107
WB Thru	563	3200	0.191 *	7	570	3200	0.193 *	0	570	3200	0.193 *	78	23	664	3200	0.225 *	7	671	3200	0.227 *
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	6	0	55	0	0.000	0	55	0	0.000
Yellow Allowance				0.050 *				0.050 *				0.050 *					0.050 *			
ICU				0.669				0.679				0.766					0.776			
LOS				B				B				C					C			

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU8

Azusa Avenue @ San Bernardino Road
 Peak hr: PM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	112	1600	0.070 *	5	117	1600	0.073 *	0	117	1600	0.073 *	16	0	128	1600	0.080 *	5	133	1600	0.083 *	
NB Thru	701	3200	0.241	0	701	3200	0.241	0	701	3200	0.241	97	10	808	3200	0.280	0	808	3200	0.280	
NB Right	69	0	0.000	0	69	0	0.000	0	69	0	0.000	10	8	87	0	0.000	0	87	0	0.000	
SB Left	136	1600	0.085	0	136	1600	0.085	0	136	1600	0.085	19	0	155	1600	0.097	0	155	1600	0.097	
SB Thru	724	3200	0.262 *	1	725	3200	0.267 *	0	725	3200	0.267 *	100	11	835	3200	0.302 *	1	836	3200	0.306 *	
SB Right	115	0	0.000	13	128	0	0.000	0	128	0	0.000	16	0	131	0	0.000	13	144	0	0.000	
EB Left	199	1600	0.124	16	215	1600	0.134	0	215	1600	0.134	27	0	226	1600	0.141	16	242	1600	0.151	
EB Thru	591	3200	0.220 *	14	605	3200	0.227 *	0	605	3200	0.227 *	82	29	702	3200	0.260 *	14	716	3200	0.267 *	
EB Right	113	0	0.000	8	121	0	0.000	0	121	0	0.000	16	0	129	0	0.000	8	137	0	0.000	
WB Left	122	1600	0.076 *	0	122	1600	0.076 *	0	122	1600	0.076 *	17	6	145	1600	0.091 *	0	145	1600	0.091 *	
WB Thru	280	3200	0.107	11	291	3200	0.111	0	291	3200	0.111	38	28	346	3200	0.130	11	357	3200	0.134	
WB Right	63	0	0.000	0	63	0	0.000	0	63	0	0.000	8	0	71	0	0.000	0	71	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.678				0.693				0.693				0.782				0.797		
LOS			B				B				B				C				C		

* Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU9

Azusa Avenue @ Badillo Street
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT				2040 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	270	1600	0.169 *	9	279	1600	0.174 *	0	279	1600	0.174 *	38	0	308	1600	0.193 *	9	317	1600	0.198 *	0	317	1600	0.198 *
NB Thru	773	3200	0.268	-1	772	3200	0.267	0	772	3200	0.267	106	18	897	3200	0.310	-1	896	3200	0.310	0	896	4800	0.207
NB Right	83	0	0.000	0	83	0	0.000	0	83	0	0.000	11	2	96	0	0.000	0	96	0	0.000	0	96	0	0.000
SB Left	108	1600	0.068	0	108	1600	0.068	0	108	1600	0.068	15	0	123	1600	0.077	0	123	1600	0.077	0	123	1600	0.077
SB Thru	696	3200	0.258 *	-3	693	3200	0.258 *	0	693	3200	0.258 *	97	19	812	3200	0.300 *	-3	809	3200	0.299 *	0	809	4800	0.200 *
SB Right	131	0	0.000	0	131	0	0.000	0	131	0	0.000	18	0	149	0	0.000	0	149	0	0.000	0	149	0	0.000
EB Left	79	1600	0.049 *	0	79	1600	0.049 *	0	79	1600	0.049 *	11	0	90	1600	0.056 *	0	90	1600	0.056 *	0	90	1600	0.056 *
EB Thru	548	3200	0.195	7	555	3200	0.201	0	555	3200	0.201	76	6	630	3200	0.224	7	637	3200	0.230	0	637	3200	0.230
EB Right	77	0	0.000	12	89	0	0.000	0	89	0	0.000	11	0	88	0	0.000	12	100	0	0.000	0	100	0	0.000
WB Left	109	1600	0.068	0	109	1600	0.068	0	109	1600	0.068	16	2	127	1600	0.079	0	127	1600	0.079	0	127	1600	0.079
WB Thru	747	3200	0.249 *	6	753	3200	0.251 *	0	753	3200	0.251 *	103	5	855	3200	0.284 *	6	861	3200	0.286 *	0	861	3200	0.286 *
WB Right	49	0	0.000	0	49	0	0.000	0	49	0	0.000	6	0	55	0	0.000	0	55	0	0.000	0	55	0	0.000
Yellow Allowance				0.050 *				0.050 *				0.050 *					0.050 *				0.050 *			
ICU				0.775				0.782				0.883					0.890				0.790			
LOS				C				C				D					D				C			

* Key conflicting movement as a part of ICU

1 Counts conducted by: City Traffic Counters

2 Capacity expressed in veh/hour of green

3 The mitigation measure consists of an additional through lane in the northbound and southbound approaches.

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU9

Azusa Avenue @ Badillo Street
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT				2040 FUTURE W/ PROJECT + MITIGATION			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	128	1600	0.080 *	10	138	1600	0.086 *	0	138	1600	0.086 *	18	0	146	1600	0.091 *	10	156	1600	0.098 *	0	156	1600	0.098 *
NB Thru	792	3200	0.267	5	797	3200	0.268	0	797	3200	0.268	109	18	919	3200	0.309	5	924	3200	0.311	0	924	4800	0.207
NB Right	62	0	0.000	0	62	0	0.000	0	62	0	0.000	8	1	71	0	0.000	0	71	0	0.000	0	71	0	0.000
SB Left	112	1600	0.070	0	112	1600	0.070	0	112	1600	0.070	16	0	128	1600	0.080	0	128	1600	0.080	0	128	1600	0.080
SB Thru	871	3200	0.294 *	8	879	3200	0.297 *	0	879	3200	0.297 *	120	18	1009	3200	0.340 *	8	1017	3200	0.343 *	0	1017	4800	0.229 *
SB Right	69	0	0.000	1	70	0	0.000	0	70	0	0.000	10	0	79	0	0.000	1	80	0	0.000	0	80	0	0.000
EB Left	126	1600	0.079	0	126	1600	0.079	0	126	1600	0.079	17	0	143	1600	0.089	0	143	1600	0.089	0	143	1600	0.089
EB Thru	870	3200	0.308 *	13	883	3200	0.314 *	0	883	3200	0.314 *	120	7	997	3200	0.353 *	13	1010	3200	0.359 *	0	1010	3200	0.359 *
EB Right	115	0	0.000	8	123	0	0.000	0	123	0	0.000	16	0	131	0	0.000	8	139	0	0.000	0	139	0	0.000
WB Left	156	1600	0.098 *	0	156	1600	0.098 *	0	156	1600	0.098 *	22	1	179	1600	0.112 *	0	179	1600	0.112 *	0	179	1600	0.112 *
WB Thru	493	3200	0.169	13	506	3200	0.173	0	506	3200	0.173	68	8	569	3200	0.195	13	582	3200	0.199	0	582	3200	0.199
WB Right	48	0	0.000	0	48	0	0.000	0	48	0	0.000	6	0	54	0	0.000	0	54	0	0.000	0	54	0	0.000
Yellow Allowance	0.050 *			0.050 *			0.050 *			0.050 *			0.050 *			0.050 *			0.050 *			0.050 *		
ICU	0.829			0.845			0.845			0.845			0.946			0.961			0.961			0.847		
LOS	D			D			D			D			E			E			E			D		

* Key conflicting movement as a part of ICU

1 Counts conducted by: City Traffic Counters

2 Capacity expressed in veh/hour of green

3 The mitigation measure consists of an additional through lane in the northbound and southbound approaches.

LINSCOTT, LAW & GREENSPAN, ENGINEERS
600 S. Lake Avenue, Ste 500, Pasadena 91106
(626) 796.2322 Fax (626) 792.0941

INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU10

Azusa Avenue @ Puente Avenue
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT				
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	109	1600	0.068	0	109	1600	0.068	0	109	1600	0.068	16	0	125	1600	0.078	0	125	1600	0.078	
NB Thru	1119	3200	0.385 *	6	1125	3200	0.387 *	0	1125	3200	0.387 *	155	13	1287	3200	0.445 *	6	1293	3200	0.447	
NB Right	114	0	0.000	0	114	0	0.000	0	114	0	0.000	16	6	136	0	0.000	0	136	0	0.000	
SB Left	177	1600	0.111 *	3	180	1600	0.113 *	0	180	1600	0.113 *	24	6	207	1600	0.129 *	3	210	1600	0.131	
SB Thru	802	3200	0.251	6	808	3200	0.253	0	808	3200	0.253	111	15	928	3200	0.290	6	934	3200	0.292	
SB Right	58	1600	0.036	0	58	1600	0.036	0	58	1600	0.036	8	0	66	1600	0.041	0	66	1600	0.041	
EB Left	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	11	0	88	1600	0.055	0	88	1600	0.055	
EB Thru	355	1600	0.222 *	0	355	1600	0.222 *	0	355	1600	0.222 *	49	9	413	1600	0.258 *	0	413	1600	0.258	
EB Right	95	1600	0.059	0	95	1600	0.059	0	95	1600	0.059	13	0	108	1600	0.068	0	108	1600	0.068	
WB Left	86	1600	0.054 *	0	86	1600	0.054 *	0	86	1600	0.054 *	11	6	103	1600	0.064 *	0	103	1600	0.064	
WB Thru	478	3200	0.176	0	478	3200	0.177	0	478	3200	0.177	66	10	554	3200	0.205	0	554	3200	0.206	
WB Right	86	0	0.000	3	89	0	0.000	0	89	0	0.000	11	6	103	0	0.000	3	106	0	0.000	
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *	0.100	
ICU			0.872				0.875				0.875				0.997				1.000		
LOS			D				D				D				E				E		

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Azusa Avenue
E-W St: Puente Avenue
Project: Covina Bowl Project/1-19-4348-1
File: ICU10

Azusa Avenue @ Puente Avenue
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 4/23/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	76	1600	0.048 *	0	76	1600	0.048 *	0	76	1600	0.048 *	11	0	87	1600	0.054 *	0	87	1600	0.054 *
NB Thru	821	3200	0.279	10	831	3200	0.282	0	831	3200	0.282	114	15	950	3200	0.324	10	960	3200	0.327
NB Right	72	0	0.000	0	72	0	0.000	0	72	0	0.000	10	5	87	0	0.000	0	87	0	0.000
SB Left	91	1600	0.057	5	96	1600	0.060	0	96	1600	0.060	13	5	109	1600	0.068	5	114	1600	0.071
SB Thru	1173	3200	0.367 *	11	1184	3200	0.370 *	0	1184	3200	0.370 *	162	14	1349	3200	0.422 *	11	1360	3200	0.425 *
SB Right	36	1600	0.023	0	36	1600	0.023	0	36	1600	0.023	5	0	41	1600	0.026	0	41	1600	0.026
EB Left	158	1600	0.099	1	159	1600	0.099	0	159	1600	0.099	22	0	180	1600	0.113	1	181	1600	0.113
EB Thru	540	1600	0.338 *	1	541	1600	0.338 *	0	541	1600	0.338 *	75	10	625	1600	0.391 *	1	626	1600	0.391 *
EB Right	114	1600	0.071	0	114	1600	0.071	0	114	1600	0.071	16	0	130	1600	0.081	0	130	1600	0.081
WB Left	82	1600	0.051 *	0	82	1600	0.051 *	0	82	1600	0.051 *	11	5	98	1600	0.061 *	0	98	1600	0.061 *
WB Thru	234	3200	0.087	0	234	3200	0.088	0	234	3200	0.088	32	8	274	3200	0.103	0	274	3200	0.104
WB Right	43	0	0.000	5	48	0	0.000	0	48	0	0.000	6	5	54	0	0.000	5	59	0	0.000
Yellow Allowance			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *	
ICU			0.903				0.907				0.907				1.028				1.032	
LOS			E				E				E				F				F	

- * Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

HCS7 Two-Way Stop-Control Report

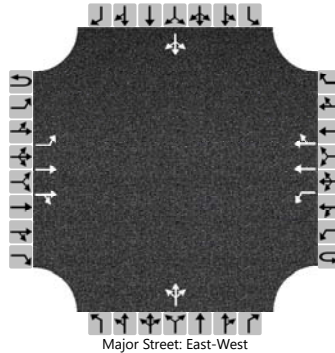
General Information

Analyst	DR
Agency/Co.	LLG Engineers
Date Performed	4/14/2020
Analysis Year	2019
Time Analyzed	Existing AM Pear Hour
Intersection Orientation	East-West
Project Description	Covina Bowl Project/1-194348-1

Site Information

Intersection	Int-11
Jurisdiction	Covina
East/West Street	Badillo Street
North/South Street	Armel Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	15	673	53	0	7	849	4		6	3	21		2	10	15
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

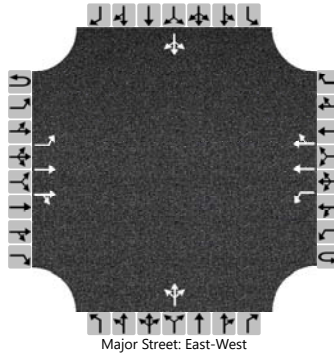
Flow Rate, v (veh/h)		16				8					33				29	
Capacity, c (veh/h)		727				820					233				156	
v/c Ratio		0.02				0.01					0.14				0.19	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.7	
Control Delay (s/veh)		10.1				9.4					22.9				33.3	
Level of Service (LOS)		B				A					C				D	
Approach Delay (s/veh)	0.2				0.1				22.9				33.3			
Approach LOS									C				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/14/2020	East/West Street	Badillo Street
Analysis Year	2019	North/South Street	Armel Drive
Time Analyzed	Existing PM Pear Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	26	952	27	0	9	636	3		4	4	12		2	4	11
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

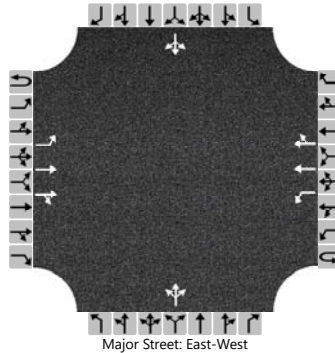
Flow Rate, v (veh/h)		28				10					22				18	
Capacity, c (veh/h)		890				645					153				185	
v/c Ratio		0.03				0.02					0.14				0.10	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.3	
Control Delay (s/veh)		9.2				10.7					32.3				26.6	
Level of Service (LOS)		A				B					D				D	
Approach Delay (s/veh)	0.2				0.1				32.3				26.6			
Approach LOS									D				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/14/2020	East/West Street	Badillo Street
Analysis Year	2019	North/South Street	Armel Drive
Time Analyzed	Existing + Proj BO AM PH	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	15	680	53	0	7	855	4		6	3	21		2	10	15
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		16				8					33				29	
Capacity, c (veh/h)		723				815					229				154	
v/c Ratio		0.02				0.01					0.14				0.19	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.7	
Control Delay (s/veh)		10.1				9.5					23.3				33.9	
Level of Service (LOS)		B				A					C				D	
Approach Delay (s/veh)	0.2				0.1				23.3				33.9			
Approach LOS									C				D			

HCS7 Two-Way Stop-Control Report

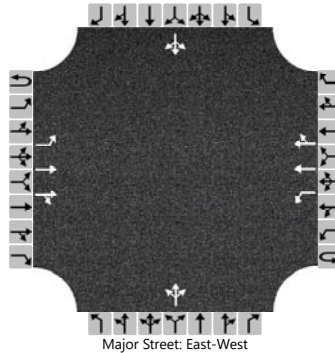
General Information

Analyst	DR
Agency/Co.	LLG Engineers
Date Performed	4/14/2020
Analysis Year	2019
Time Analyzed	Exist + Proj BO PM PH
Intersection Orientation	East-West
Project Description	Covina Bowl Project/1-194348-1

Site Information

Intersection	Int-11
Jurisdiction	Covina
East/West Street	Badillo Street
North/South Street	Armel Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	26	965	27	0	9	649	3		4	4	12		2	4	11
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		28				10					22				18	
Capacity, c (veh/h)		879				637					148				179	
v/c Ratio		0.03				0.02					0.15				0.10	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.5				0.3	
Control Delay (s/veh)		9.2				10.7					33.5				27.5	
Level of Service (LOS)		A				B					D				D	
Approach Delay (s/veh)	0.2				0.1				33.5				27.5			
Approach LOS									D				D			

HCS7 Two-Way Stop-Control Report

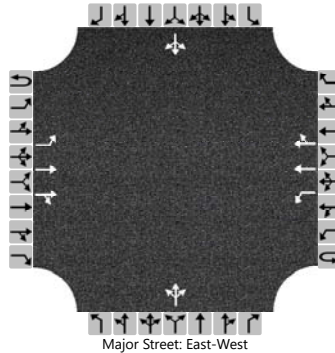
General Information

Analyst	DR
Agency/Co.	LLG Engineers
Date Performed	4/23/2020
Analysis Year	2040
Time Analyzed	Future Pre-Proj AM PH
Intersection Orientation	East-West
Project Description	Covina Bowl Project/1-194348-1

Site Information

Intersection	Int-11
Jurisdiction	Covina
East/West Street	Badillo Street
North/South Street	Armel Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	17	774	61	0	8	973	4		6	3	24		2	12	17
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		18				9					36					34
Capacity, c (veh/h)		646				739					178					109
v/c Ratio		0.03				0.01					0.20					0.31
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.7					1.2
Control Delay (s/veh)		10.7				9.9					30.2					52.1
Level of Service (LOS)		B				A					D					F
Approach Delay (s/veh)	0.2				0.1				30.2				52.1			
Approach LOS									D				F			

HCS7 Two-Way Stop-Control Report

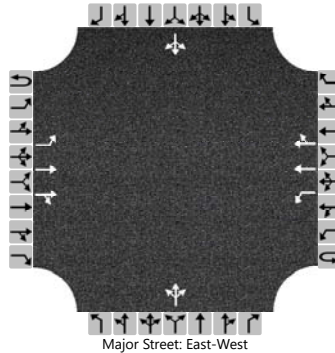
General Information

Analyst	DR
Agency/Co.	LLG Engineers
Date Performed	4/23/2020
Analysis Year	2040
Time Analyzed	Future Pre-Proj PM PH
Intersection Orientation	East-West
Project Description	Covina Bowl Project/1-194348-1

Site Information

Intersection	Int-11
Jurisdiction	Covina
East/West Street	Badillo Street
North/South Street	Armel Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	29	1092	30	0	10	732	3		4	4	14		2	4	13
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

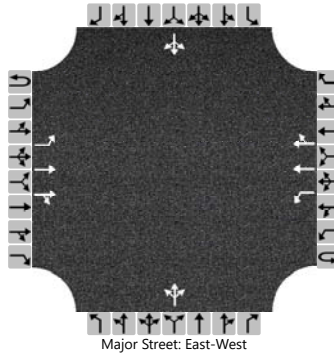
Flow Rate, v (veh/h)		32				11					24				21	
Capacity, c (veh/h)		813				562					115				143	
v/c Ratio		0.04				0.02					0.21				0.14	
95% Queue Length, Q ₉₅ (veh)		0.1				0.1					0.7				0.5	
Control Delay (s/veh)		9.6				11.5					44.2				34.3	
Level of Service (LOS)		A				B					E				D	
Approach Delay (s/veh)	0.2				0.2				44.2				34.3			
Approach LOS									E				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/23/2020	East/West Street	Badillo Street
Analysis Year	2040	North/South Street	Armel Drive
Time Analyzed	Future + Project AM PH	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	17	781	61	0	8	979	4		6	3	24		2	12	17
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

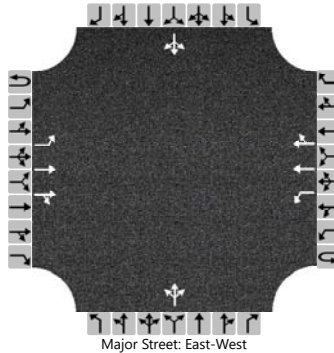
Flow Rate, v (veh/h)		18				9					36				34	
Capacity, c (veh/h)		642				735					175				107	
v/c Ratio		0.03				0.01					0.20				0.31	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.7				1.2	
Control Delay (s/veh)		10.8				10.0					30.8				53.3	
Level of Service (LOS)		B				A					D				F	
Approach Delay (s/veh)	0.2				0.1				30.8				53.3			
Approach LOS									D				F			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	DR	Intersection	Int-11
Agency/Co.	LLG Engineers	Jurisdiction	Covina
Date Performed	4/23/2020	East/West Street	Badillo Street
Analysis Year	2040	North/South Street	Armel Drive
Time Analyzed	Future W-Project PM PH	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Covina Bowl Project/1-194348-1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	29	1105	30	0	10	745	3		4	4	14		2	4	13
Percent Heavy Vehicles (%)	3	3			3	3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		32				11					24				21	
Capacity, c (veh/h)		803				555					111				138	
v/c Ratio		0.04				0.02					0.22				0.15	
95% Queue Length, Q ₉₅ (veh)		0.1				0.1					0.8				0.5	
Control Delay (s/veh)		9.7				11.6					46.1				35.6	
Level of Service (LOS)		A				B					E				E	
Approach Delay (s/veh)	0.2				0.2				46.1				35.6			
Approach LOS									E				E			

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INTERSECTION CAPACITY UTILIZATION

N-S St: Hollenbeck Avenue
 E-W St: San Bernardino Road
 Project: Covina Bowl Project/1-19-4348-1
 File: ICU12

Hollenbeck Avenue @ San Bernardino Road
 Peak hr: AM
 Annual Growth: 0.50% Year 2024 to 2040
 1.00% Year 2019 to 2024

Date: 5/20/2020
 Date of Count: 2019
 Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	63	1600	0.039	0	63	1600	0.039	0	63	1600	0.039	8	0	71	1600	0.044	0	71	1600	0.044	
NB Thru	462	1600	0.299 *	0	462	1600	0.299 *	0	462	1600	0.299 *	64	16	542	1600	0.351 *	0	542	1600	0.351 *	
NB Right	17	0	0.000	0	17	0	0.000	0	17	0	0.000	2	0	19	0	0.000	0	19	0	0.000	
SB Left	87	1600	0.054 *	0	87	1600	0.054 *	0	87	1600	0.054 *	12	0	99	1600	0.062 *	0	99	1600	0.062 *	
SB Thru	497	1600	0.311	0	497	1600	0.311	0	497	1600	0.311	68	11	576	1600	0.360	0	576	1600	0.360	
SB Right	355	1600	0.222	4	359	1600	0.224	0	359	1600	0.224	49	0	404	1600	0.253	4	408	1600	0.255	
EB Left	121	1600	0.076 *	3	124	1600	0.078 *	0	124	1600	0.078 *	17	0	138	1600	0.086 *	3	141	1600	0.088 *	
EB Thru	228	1600	0.143	4	232	1600	0.145	0	232	1600	0.145	32	24	284	1600	0.178	4	288	1600	0.180	
EB Right	23	1600	0.014	0	23	1600	0.014	0	23	1600	0.014	3	0	26	1600	0.016	0	26	1600	0.016	
WB Left	28	1600	0.018	0	28	1600	0.018	0	28	1600	0.018	3	0	31	1600	0.019	0	31	1600	0.019	
WB Thru	402	1600	0.292 *	4	406	1600	0.294 *	0	406	1600	0.294 *	56	30	488	1600	0.351 *	4	492	1600	0.354 *	
WB Right	65	0	0.000	0	65	0	0.000	0	65	0	0.000	9	0	74	0	0.000	0	74	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.771				0.776				0.776				0.900				0.904		
LOS			C				C				C				D				E		

- * Key conflicting movement as a part of ICU
 1 Counts conducted by: City Traffic Counters
 2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Hollenbeck Avenue
E-W St: San Bernardino Road
Project: Covina Bowl Project/1-19-4348-1
File: ICU12

Hollenbeck Avenue @ San Bernardino Road
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	28	1600	0.018	0	28	1600	0.018	0	28	1600	0.018	3	0	31	1600	0.019	0	31	1600	0.019	
NB Thru	608	1600	0.392 *	0	608	1600	0.392 *	0	608	1600	0.392 *	84	12	704	1600	0.454 *	0	704	1600	0.454 *	
NB Right	19	0	0.000	0	19	0	0.000	0	19	0	0.000	3	0	22	0	0.000	0	22	0	0.000	
SB Left	57	1600	0.036 *	0	57	1600	0.036 *	0	57	1600	0.036 *	8	0	65	1600	0.041 *	0	65	1600	0.041 *	
SB Thru	440	1600	0.275	0	440	1600	0.275	0	440	1600	0.275	60	17	517	1600	0.323	0	517	1600	0.323	
SB Right	153	1600	0.096	5	158	1600	0.099	0	158	1600	0.099	21	0	174	1600	0.109	5	179	1600	0.112	
EB Left	192	1600	0.120 *	6	198	1600	0.124 *	0	198	1600	0.124 *	27	0	219	1600	0.137 *	6	225	1600	0.141 *	
EB Thru	419	1600	0.262	7	426	1600	0.266	0	426	1600	0.266	58	36	513	1600	0.321	7	520	1600	0.325	
EB Right	67	1600	0.042	0	67	1600	0.042	0	67	1600	0.042	9	0	76	1600	0.048	0	76	1600	0.048	
WB Left	31	1600	0.019	0	31	1600	0.019	0	31	1600	0.019	5	0	36	1600	0.023	0	36	1600	0.023	
WB Thru	311	1600	0.249 *	6	317	1600	0.253 *	0	317	1600	0.253 *	43	33	387	1600	0.304 *	6	393	1600	0.308 *	
WB Right	88	0	0.000	0	88	0	0.000	0	88	0	0.000	12	0	100	0	0.000	0	100	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.847				0.854				0.854				0.986				0.993		
LOS			D				D				D				E				E		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Hollenbeck Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU13

Hollenbeck Avenue @ Badillo Street
Peak hr: AM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT					2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	61	1600	0.038	4	65	1600	0.041	0	65	1600	0.041	8	0	69	1600	0.043	4	73	1600	0.046
NB Thru	467	1600	0.292 *	0	467	1600	0.292 *	0	467	1600	0.292 *	65	16	548	1600	0.343 *	0	548	1600	0.343 *
NB Right	107	1600	0.067	0	107	1600	0.067	0	107	1600	0.067	14	0	121	1600	0.076	0	121	1600	0.076
SB Left	35	1600	0.022 *	0	35	1600	0.022 *	0	35	1600	0.022 *	5	0	40	1600	0.025 *	0	40	1600	0.025 *
SB Thru	403	1600	0.261	0	403	1600	0.261	0	403	1600	0.261	56	11	470	1600	0.304	0	470	1600	0.304
SB Right	15	0	0.000	0	15	0	0.000	0	15	0	0.000	2	0	17	0	0.000	0	17	0	0.000
EB Left	76	1600	0.048	0	76	1600	0.048	0	76	1600	0.048	11	0	87	1600	0.054	0	87	1600	0.054
EB Thru	565	3200	0.214 *	4	569	3200	0.216 *	0	569	3200	0.216 *	78	8	651	3200	0.246 *	4	655	3200	0.248 *
EB Right	120	0	0.000	3	123	0	0.000	0	123	0	0.000	16	0	136	0	0.000	3	139	0	0.000
WB Left	126	1600	0.079 *	0	126	1600	0.079 *	0	126	1600	0.079 *	17	0	143	1600	0.089 *	0	143	1600	0.089 *
WB Thru	543	3200	0.186	4	547	3200	0.187	0	547	3200	0.187	75	7	625	3200	0.214	4	629	3200	0.215
WB Right	52	0	0.000	0	52	0	0.000	0	52	0	0.000	8	0	60	0	0.000	0	60	0	0.000
Yellow Allowance			0.050 *				0.050 *				0.050 *					0.050 *				0.050 *
ICU LOS			0.657 B				0.659 B				0.659 B					0.753 C				0.755 C

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

N-S St: Hollenbeck Avenue
E-W St: Badillo Street
Project: Covina Bowl Project/1-19-4348-1
File: ICU13

Hollenbeck Avenue @ Badillo Street
Peak hr: PM
Annual Growth: 0.50% Year 2024 to 2040
1.00% Year 2019 to 2024

Date: 5/20/2020
Date of Count: 2019
Projection Year: 2040

2019 EXISTING TRAFFIC				2019 EXISTING WITH PROJECT				2019 EXISTING W/ PROJECT + MITIGATION				2040 FUTURE PRE-PROJECT						2040 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio	
NB Left	67	1600	0.042	5	72	1600	0.045	0	72	1600	0.045	9	0	76	1600	0.048	5	81	1600	0.051	
NB Thru	492	1600	0.308 *	0	492	1600	0.308 *	0	492	1600	0.308 *	68	12	572	1600	0.358 *	0	572	1600	0.358 *	
NB Right	115	1600	0.072	0	115	1600	0.072	0	115	1600	0.072	16	0	131	1600	0.082	0	131	1600	0.082	
SB Left	44	1600	0.028 *	0	44	1600	0.028 *	0	44	1600	0.028 *	6	0	50	1600	0.031 *	0	50	1600	0.031 *	
SB Thru	357	1600	0.234	0	357	1600	0.234	0	357	1600	0.234	49	17	423	1600	0.276	0	423	1600	0.277	
SB Right	17	0	0.000	1	18	0	0.000	0	18	0	0.000	2	0	19	0	0.000	1	20	0	0.000	
EB Left	126	1600	0.079	0	126	1600	0.079	0	126	1600	0.079	17	0	143	1600	0.089	0	143	1600	0.089	
EB Thru	691	3200	0.244 *	7	698	3200	0.248 *	0	698	3200	0.248 *	95	8	794	3200	0.281 *	7	801	3200	0.285 *	
EB Right	91	0	0.000	6	97	0	0.000	0	97	0	0.000	13	0	104	0	0.000	6	110	0	0.000	
WB Left	123	1600	0.077 *	0	123	1600	0.077 *	0	123	1600	0.077 *	17	0	140	1600	0.088 *	0	140	1600	0.088 *	
WB Thru	411	3200	0.143	6	417	3200	0.145	0	417	3200	0.145	57	9	477	3200	0.165	6	483	3200	0.167	
WB Right	46	0	0.000	0	46	0	0.000	0	46	0	0.000	6	0	52	0	0.000	0	52	0	0.000	
Yellow Allowance			0.050 *				0.050 *				0.050 *				0.050 *				0.050 *		
ICU			0.706				0.710				0.710				0.807				0.811		
LOS			C				C				C				D				D		

* Key conflicting movement as a part of ICU
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green

DRAFT

MEMORANDUM

To: Rafael Fajardo
David Gilbertson
City of Covina

Date: July 27, 2020

From: Clare M. Look-Jaeger, P.E.
Chin S. Taing, PTP
Linscott, Law & Greenspan, Engineers

LLG Ref: 1-19-4348-1

Subject: **Covina Bowl Specific Plan Project – Supplemental VMT Analysis
City of Covina, California**

Linscott, Law & Greenspan, Engineers (LLG) has prepared this memorandum to summarize the supplemental review conducted for Planning Areas 1 and 2 of the Covina Bowl Specific Plan project (“proposed project” herein). As you are aware, LLG previously prepared the Transportation Impact Study dated July 1, 2020 for the proposed project. We understand that the preparation of this Vehicle Miles Traveled (VMT) analysis has been requested for inclusion into the environmental review document. Based on the City’s recent adoption of Resolution CC 2020-56 regarding the VMT thresholds of significance for the purposes of analyzing transportation impacts under the California Environmental Quality Act (CEQA), the proposed project’s VMT will be qualitatively evaluated against these thresholds. These thresholds are also consistent with the recommended screening criteria contained in the State of California Governor’s Office of Planning and Research (OPR)’s 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*¹.

Overview of Senate Bill 743 and VMT-Based Analyses

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743 (Steinberg, 2013). Among other things, SB 743 creates a process to change the methodology to analyze transportation impacts under California Environmental Quality Act (CEQA - Public Resources Code section 21000 and following), which could include analysis based on project vehicle miles traveled (VMT) rather than impacts to intersection Level of Service (LOS). Under SB 743, the focus of transportation analysis pursuant to CEQA will shift from driver delay, or LOS, to reduction of vehicle miles traveled, reduction in greenhouse gas emissions, creation of multimodal networks and promotion of mixed-use developments.

On December 30, 2013, the State of California Governor’s Office of Planning and Research (OPR) released a preliminary evaluation of alternative methods of transportation analysis. The intent of the original guidance documentation was geared first towards projects located within areas that are designated as transit priority areas, to be followed by other areas of the State. OPR updated the technical advisory that accompanies the revised CEQA Guidelines in April 2018 and submitted

¹ *Technical Advisory on Evaluating Transportation Impacts in CEQA*, State of California Governor’s Office of Planning and Research, December 2018.

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the proposed updates to the CEQA Guidelines to the California Natural Resources Agency (NRA). In December 2018, the California Natural Resources Agency certified and adopted amendments to the CEQA Guidelines implementing SB 743 with a target implementation date of July 1, 2020.

The updated CEQA Guidelines allow for Lead Agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The *Technical Advisory on Evaluating Transportation Impacts in CEQA* (“*Technical Advisory*”) provides considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT. As of the preparation of this assessment, many jurisdictions including the City of Covina are currently in the process of implementing updated procedures for VMT analysis.

Project Description

The proposed project for Planning Areas 1 and 2 consists of the planned construction of up to 132 residential townhome units and restoration of the original 1955 Covina Bowl building for re-occupancy of approximately 12,000 square feet of commercial use (i.e., an 11,050 square-foot office and a 950 square-foot coffee shop). On-site amenities for the residents include an outdoor lawn bowling area, outdoor dining barbeque area, and a tot lot area which includes playgrounds and seating. Additionally, the project also includes the proposed partial encroachment into the existing North Rimsdale Avenue right-of-way (i.e., along the easterly property frontage) to allow for the addition of angled on-street parking spaces.

Vehicular access to Planning Areas 1 and 2 is planned to be provided via a total of five driveways: one driveway on San Bernardino Road, three driveways on Rimsdale Avenue, and one driveway on Badillo Street. The build-out and occupancy of Planning Areas 1 and 2 is anticipated by the year 2024.

VMT Assessment

The City of Covina is currently in the process of implementing VMT analysis procedures at this time; therefore, the project-related VMT impact has been assessed qualitatively based on guidance from the OPR’s *Technical Advisory* and review of VMT policies. The *Technical Advisory* provides the following potential screening criteria for certain land development projects that may be presumed to result in a less than significant VMT impact:

- Local-serving retail less than 50,000 square feet, including schools, daycare, student housing, etc.
- Small projects generating less than 110 trips per day
- Residential and office projects located in areas with low-VMT
- Projects near transit stations or a major transit stop that is located along a high quality transit corridor
- Residential projects with a high percentage of affordable housing

Following the City Council's adoption, projects must then comply with the updated transportation evaluation framework, thus bringing the City into compliance with the state mandate. The City's specific VMT tools/metrics has not been finalized as of the writing of this assessment; however, this assessment is being completed for inclusion into the Draft EIR for the proposed project. Should the City's decision makers (i.e., the City Council) finalize and adopt those tools/metrics prior to the Council's consideration of the proposed project, this assessment and its conclusions may need to be updated.

Based on the City's recent adoption of the VMT-based significance thresholds which are consistent with OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA* (April 2018), this VMT assessment was conducted for informational purposes. As outlined in OPR's draft guidelines, a development project that results in VMTs exceeding an applicable threshold of significance may indicate a significant impact. However, development projects that are located within one-half mile of either an existing major transit stop² or a stop along an existing high quality transit corridor³ may be presumed to cause a less than significant transportation impact. Similarly, development projects that decrease VMTs in the project area compared to existing conditions may be considered to have a less than significant transportation impact. As the proposed near-term development of Planning Areas 1 and 2 within the Covina Bowl Specific Plan project area is located within the Transit Priority Area in the City as illustrated in the orange shaded areas of **Figure A**, direct application of these OPR draft guidelines may be presumed to result in a less than significant project impact with respect to VMT. However, this presumption would not apply if project specific or location specific information indicates that the project will still generate

² Pub. Resources Code 21064.3: Major transit stop means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

³ Pub. Resources Code 21155: A high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

significant levels of VMT. According to the OPR draft guidelines, for example, the presumption might not be appropriate if the project:

- Has a floor area ratio of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the Lead Agency with input from the Metropolitan Planning Organization).

If these exceptions to the presumption might apply, the Lead Agency should conduct a detailed VMT analysis to determine whether the project would exceed VMT thresholds. For the near-term development of Planning Areas 1 and 2 of the Covina Bowl Specific Plan project, none of the above exceptions would apply. First, the combined total floor area ratio for Planning Areas 1 and 2 is 1.04:1, which is well over 0.75:1. The calculated floor area ratios are as follows:

Planning Area	Land Area	Land Area (in sf)	Building Area (in sf)	FAR
PA 1	.96 acre	41,817.60	12,000	0.29
PA 2	4.54 acres	197,762.40	236,905	1.20
Totals	5.50 acres	239,580.00	248,905	1.04

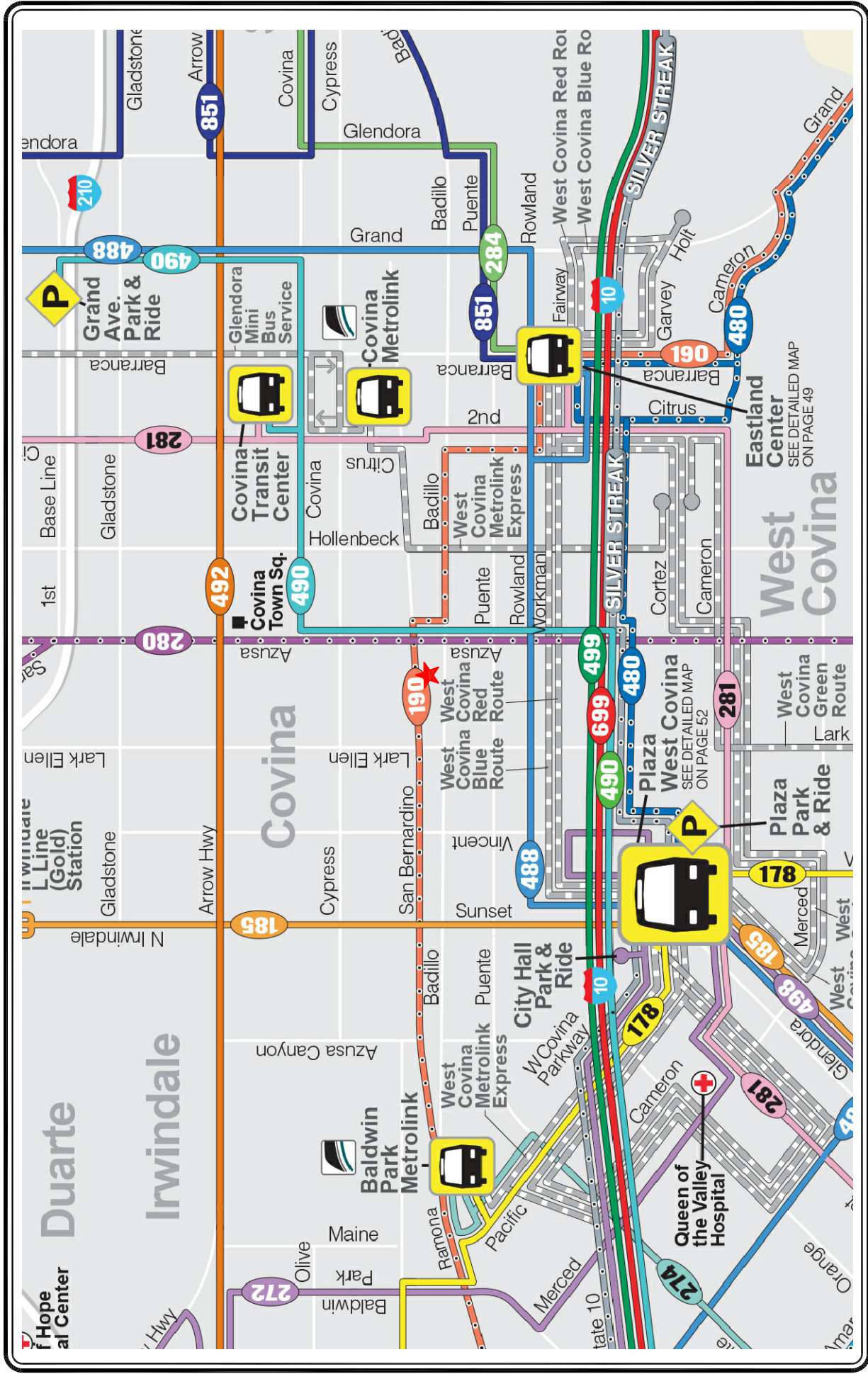
Second, the project does not propose more parking for use by residents, customers, or employees of the project than required by the relevant jurisdiction (i.e., the City of Covina). As described in the *Transportation Impact Study*, the project plans to provide a total of 346 vehicular parking spaces (including 37 on-street diagonal spaces along the west side of Rimsdale Avenue) which is less than that required through strict application of the City of Covina Municipal Code (i.e., 465 spaces). Finally, the project is consistent with the applicable Sustainable Communities Strategy, which is the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS). The project would support the 2016 RTP-SCS's overall land use pattern of reinforcing the trend of locating new housing and employment in High Quality Transit Areas (HQTAs) with the intention of reducing VMT and greenhouse gases. The project also would help increase the share of total trips that use transit for work and non-work trips.

As noted previously, extensive transit service is currently provided in the vicinity of the project and is summarized in **Table 1** and shown in **Figure B**. Public transit service within the project study area is currently provided by the Foothill Transit Authority, the City of West Covina transit system, and Metrolink. The Foothill Transit Authority Line 190 has a stop located on the north and south sides of San Bernardino Road, just east of Rimsdale Avenue. Similarly, Line 280 has a stop located on the east and west sides of Azusa Avenue at San Bernardino Road, which is also less than one-half mile northeast of the project site. During the weekday AM and PM peak hours, Foothill Transit Lines 190 and 280 provide headways of roughly 15 minutes in the eastbound and westbound directions along San Bernardino Road and in the northbound and southbound directions along Azusa Avenue, respectively.

Summary of Key Findings and Conclusions

This VMT analysis has been conducted to identify and evaluate the potential impacts of the proposed project based on the VMT methodology set forth in the OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*. According to the screening criteria in the *Technical Advisory*, the proposed near-term development of Planning Areas 1 and 2 within the Covina Bowl Specific Plan project area can be presumed to result in a less than significant VMT impact since development projects that are located within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor may be presumed to cause a less than significant transportation impact.

Please feel free to call us at 626.796.2322 with any questions or comments regarding the supplemental VMT assessment prepared for the proposed Covina Bowl Specific Plan project.



NOT TO SCALE

MAP SOURCE: FOOTHILL TRANSIT AUTHORITY WEBSITE, JULY 2020



PROJECT SITE

FIGURE B
EXISTING TRANSIT ROUTES

Table 1
EXISTING TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
Foothill Transit 190	Pomona to El Monte via Covina, West Covina and Baldwin Park	Lark Ellen Avenue, Rimsdale Avenue, Azusa Avenue, San Bernardino Road	EB WB	4 4	4 3
Foothill Transit 280	Puente Hills to Azusa via La Puente, West Covina and Covina	Azusa Avenue, San Bernardino Road, Badillo Street, Puente Avenue	NB SB	4 4	4 4
Foothill Transit 488	Glendora to El Monte via Covina, West Covina and Baldwin Park	Lark Ellen Avenue, Azusa Avenue, Rowland Avenue	EB WB	3 3	2 2
West Covina Blue Line	City of West Covina	Lark Ellen Avenue, Badillo Street	Clockwise C-Clockwise	0 2	0 2
West Covina Red Line	City of West Covina	Azusa Avenue, Puente Avenue	Clockwise C-Clockwise	2 0	2 0
Metrolink - San Bernardino	San Bernardino to Downtown Los Angeles via Rialto, Fontana, Rancho Cucamonga, Upland, Montclair, Claremont, Pomona, Covina, Baldwin Park, El Monte and Cal State LA	Citrus Avenue, Front Street	EB WB	1 2	2 1
Total				29	26

[1] Sources: Foothill Transit, City of West Covina (Transit) and Metrolink websites, 2020.