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TUSTIN LEGACY SPECIFIC PLAN AMENDMENT

for City of Tustin

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Table of Contents

Section **Page**

1. INTRODUCTION 1
1.1 PURPOSE AND SCOPE 1
1.2 ENVIRONMENTAL PROCEDURES 1
1.3 PREVIOUS ENVIRONMENTAL DOCUMENTATION 2
2. ENVIRONMENTAL SETTING 5
2.1 PROJECT LOCATION 5
2.2 EXISTING CONDITIONS 5
3. PROJECT DESCRIPTION 11
3.1 PROJECT BACKGROUND 11
3.2 PROJECT CHARACTERISTICS 11
4. ENVIRONMENTAL CHECKLIST 25
4.1 BACKGROUND 25
4.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 27
4.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY) 27
4.4 EVALUATION OF ENVIRONMENTAL IMPACTS 28
5. ENVIRONMENTAL ANALYSIS 31
5.1 AESTHETICS 31
5.2 AGRICULTURE AND FORESTRY RESOURCES 34
5.3 AIR QUALITY 37
5.4 BIOLOGICAL RESOURCES 40
5.5 CULTURAL RESOURCES 44
5.6 GEOLOGY AND SOILS 47
5.7 GREENHOUSE GAS EMISSIONS 53
5.8 HAZARDS AND HAZARDOUS MATERIALS 56
5.9 HYDROLOGY AND WATER QUALITY 62
5.10 LAND USE AND PLANNING 69
5.11 MINERAL RESOURCES 70
5.12 NOISE 71
5.13 POPULATION AND HOUSING 75
5.14 PUBLIC SERVICES 77
5.15 RECREATION 85
5.16 TRANSPORTATION/TRAFFIC 87
5.17 UTILITIES AND SERVICE SYSTEMS 98
5.18 MANDATORY FINDINGS OF SIGNIFICANCE 103
6. REFERENCES 105
7. LIST OF PREPARERS 109

APPENDIX

Appendix A Tustin Legacy Specific Plan Amendment: Existing Traffic Conditions Memo

Table of Contents

List of Figures

Figure **Page**

Figure 1 Regional Setting 7
Figure 2 Local Vicinity 9
Figure 3 Existing Land Use Plan 19
Figure 4 Proposed Land Use Plan 21
Figure 5 Proposed Neighborhood Plan 23
Figure 6 School District Service Areas 79
Figure 7 Existing ADT 91
Figure 8 Existing Intersection Location Map 93

List of Tables

Table **Page**

Table 1 Land Use Categories 13
Table 2 Land Use Plan Statistical Summary 15
Table 3 Amended Specific Plan Park Plan 17
Table 4 Construction BMPs 51
Table 5 Hazardous Materials Sites in Specific Plan Area SWRCB 61
Table 6 TUSD Student Generation Rates 78
Table 7 Capacities and Enrollments, TUSD Schools Serving the Project Area 84
Table 8 Significant Impacts to Intersection Operation, MCAS Tustin Specific Plan (FEIS/EIR) 88
Table 9 Tustin Legacy: Existing LOS Summary 89
Table 10 Landfill Capacities 101
Table 11 Net Change in Solid Waste Generation Due to Specific Plan Amendment Buildout 102

Abbreviations and Acronyms

AAQS	ambient air quality standards
AB	Assembly Bill
ADT	average daily traffic
AELUP	airport environs land use plan
ALUC	airport land use commission
AQMP	air quality management plan
BMP	best management practices
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CMP	Congestion Management Program
CO	carbon monoxide
Corps	US Army Corps of Engineers
CUPA	Certified Unified Program Agency
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EIS	environmental impact statement
EPA	US Environmental Protection Agency
FAA	Federal Aviation Administration
FEIR	final environmental impact report
FEIS	final environmental impact statement
FEMA	Federal Emergency Management Agency
GHG	greenhouse gases
gpd	gallons per day
ICU	intersection capacity utilization
IPCC	Intergovernmental Panel on Climate Change
IRWD	Irvine Ranch Water District
ITAM	Irvine Transportation Analysis Model
IUSD	Irvine Unified School District
LID	low-impact development
LOS	level of service
MCAS	Marine Corps Air Station

Abbreviations and Acronyms

mgd	million gallons per day
MPO	metropolitan planning organization
NCCP/HCP	natural community conservation plan/habitat conservation plan
NO_X	nitrogen oxides
O_3	ozone
OCFA	Orange County Fire Authority
Pb	lead
PM	particulate matter
RTP/SCS	regional transportation plan/sustainable communities strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SEIR	supplemental environmental impact report
SoCAB	South Coast Air Basin
SO_X	sulfur oxides
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TUSD	Tustin Unified School District
VMT	vehicle miles traveled
VOC	volatile organic compound

1. Introduction

1.1 PURPOSE AND SCOPE

The City of Tustin is circulating for public review and comment this Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) and Initial Study for the Tustin Legacy Specific Plan Amendment (described throughout as "Amended Specific Plan," "Specific Plan Amendment," "proposed project," or "modified project"). This Initial Study has been prepared in accordance with the California Environmental Quality Act ([CEQA], Public Resources Code §§ 21000 et seq.) and the State CEQA Guidelines (14 Cal. Code of Regulations §§ 15000–15387).

Pursuant to the provisions of CEQA and the State CEQA Guidelines, the City is the lead agency charged with deciding whether or not to approve the Tustin Legacy Specific Plan Amendment. This Initial Study was prepared pursuant to CEQA Guidelines Sections 15063, 15162, and 15163 and addresses potential impacts associated with the proposed project.

1.2 ENVIRONMENTAL PROCEDURES

This Initial Study focuses on the potential environmental impacts associated with the proposed project that might cause a change in the conclusions of the previously certified environmental documentation (see Section 1.3), including changes in circumstances and new information of substantial importance.

Pursuant to Section 21166 of CEQA and Section 15162 of the State CEQA Guidelines, when an environmental impact report (EIR) has been certified or a negative declaration adopted for a project, no subsequent or supplemental EIR or negative declaration shall be prepared for the project unless the lead agency determines that one or more of the following conditions are met:

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

- Substantial changes would occur with respect to the circumstances under which the project is undertaken that require major revisions to the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

- New information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the negative declaration was adopted shows any of the following:

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

B. Significant effects previously examined will be substantially more severe than identified in the previous EIR.

C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives.

D. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

If any of the conditions specified in Section 15162 are present but only minor additions or changes are necessary to make the previous EIR adequate for the proposed project, then a supplemental EIR may be prepared. Pursuant to CEQA Guidelines Section 15163, the supplemental EIR need only contain the information necessary to make the previous EIR adequate for the revised project. Based on the analysis provided in Section 5 of this Initial Study, the City has determined that a supplemental EIR is the appropriate form of environmental review for the proposed project, since some changes or additions to the previously prepared EIR are necessary, but only minor changes to the environmental analysis are required to make it adequate for the modified project.

This Initial Study analyzes the changes proposed by the Tustin Legacy Specific Plan Amendment and any changes to the existing conditions that have occurred since the certification of the previous environmental documentation (see Section 1.3). It also reviews new information of substantial importance related to environmental impacts, mitigation measures, and/or alternatives that was not known and could not have been known with exercise of reasonable diligence at the time that the previous environmental documentation was certified. It further examines whether, as a result of any changes or any new information, a subsequent or supplemental EIR may be required. This examination includes an analysis of the provisions of Section 21166 of CEQA and Section 15162 of the State CEQA Guidelines and their applicability to the proposed project.

The Environmental Checklist Form in Appendix G of the CEQA Guidelines has been completed by the City and included in Section 5 of this Initial Study. The checklist presents findings of the environmental effects of the proposed project compared with the findings of the previous environmental documentation described in Section 1.3, below.

1.3 PREVIOUS ENVIRONMENTAL DOCUMENTATION

This Initial Study relies on the previous certified environmental analysis, adopted findings, and statement of overriding considerations prepared for the disposal and reuse of the Marine Corps Air Station Tustin ("MCAS Tustin"). A summary of the previous environmental documentation and how it relates to the Tustin Legacy Specific Plan Amendment is provided below.

1.3.1 Final Environmental Impact Statement/Final Environmental Impact Report for the Disposal and Reuse of MCAS Tustin

The Final Environmental Impact Statement/Final Environmental Impact Report ("2001 FEIS/EIR," SCH# 94071005) prepared for the disposal and reuse of the MCAS Tustin was certified by the Tustin City Council on January 16, 2001 (Resolution 00-90). The Tustin City Council adopted General Plan Amendment 00-001, which incorporated the Reuse Plan land use designations into the General Plan for that portion of MCAS in the City of Tustin. On March 2, 2001, a Record of Decision was issued by the US Navy approving the FEIS/EIR and the Specific Plan. The FEIS/EIR analyzed the consequences of the Navy disposal and local community reuse of the MCAS Tustin site per the Reuse Plan and the MCAS Tustin Specific Plan/Reuse Plan in accordance with CEQA and the National Environmental Policy Act (NEPA). The analysis covered the entire 1,606 acres of the project area: 1,511 acres in the City of Tustin and 95 acres in the City of Irvine. The project included "Implementation Actions" that the cities were required to implement on the MCAS Tustin Specific Plan/Reuse Plan, including the adoption of the MCAS Tustin Specific Plan/Reuse Plan and MCAS Tustin Redevelopment Plan by the City of Tustin. The preferred reuse plan analyzed in the FEIS/EIR allowed up to 11.4 million square feet of nonresidential land uses and 4,601 residential units within the City of Tustin and City of Irvine's jurisdiction. Pursuant to the implementation actions, the Tustin City Council adopted the MCAS Tustin Specific Plan/Reuse Plan on February 3, 2003 (Ordinance No. 1257).

The 2001 FEIS/EIR was a Program EIR that was intended to be used as the CEQA compliance for future development consistent with the MCAS Tustin Specific Plan. The 2001 FEIS/EIR analyzed a multiyear development period for the planned urban reuse project (now called "Tustin Legacy"). As individual development projects are proposed within the Specific Plan area, the City (lead agency) determines whether the environmental impacts of individual activities were fully analyzed in the FEIS/EIR. The City may approve projects that are within the scope of the project as analyzed by the FEIS/EIR. The City would then determine the appropriate level of CEQA review, discussed above under Section 1.2.

Since certification of the FEIS/EIR, there have been one supplement and two addenda to the 2001 FEIS/EIR, and the City has certified or adopted multiple CEQA documents for amendments to the MCAS Tustin Specific Plan and development projects in the Tustin Legacy area. A summary of the purpose and application of the supplement and addendum pertaining to the MCAS Tustin Specific Plan are described below. The original FEIS/EIR document, the supplement, and addendum are collectively referred to herein as the "FEIS/EIR."

1.3.1.1 2004 SUPPLEMENTAL EIR

The "Supplemental EIR to the Final EIS/EIR for the Disposal and Reuse of Marine Corps Air Station, Tustin, California: Extension of Tustin Ranch Road between Walnut Avenue and the Future Alignment of Valencia North Loop Road" ("2004 SEIR," SCH# 1994071005) was certified on December 6, 2004. It analyzed the impacts of a one-mile extension of Tustin Ranch Road from Walnut Avenue on the north to the future alignment of Valencia North Loop Road on the south. The segment included an overpass over the Orange County Flood Control District right-of-way, the Orange County Transportation Authority / Southern California Regional Rail Authority railroad right-of-way, and Edinger Avenue.

1. Introduction

The 2004 SEIR determined that there were no substantial changes in the existing conditions or new significant environmental impacts associated with aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services/utilities, and recreation. The 2004 SEIR focused on three environmental topics: transportation/traffic, air quality, and noise. Mitigation measures were adopted for all three topic areas. Significant unavoidable adverse impacts were found to remain with respect to air quality (construction-related and long-term emissions) and traffic (intersections of Tustin Ranch Road/Walnut Avenue and Jamboree Road/Barranca Parkway), and the 2004 SEIR relied on the statement of overriding considerations adopted with certification of the 2001 FEIS/EIR.

1.3.1.2 2006 ADDENDUM

On April 3, 2006, the City certified the "MCAS Tustin Zone Change (Specific Plan Amendment) 05-002, Master Developer Disposition and Development Agreement, and Development Plan Addendum to the Final Environmental Impact Statement/Environmental Impact Report for the Disposal and Reuse of the MCAS Tustin" ("2006 Addendum"). The Specific Plan Amendment reduced permitted nonresidential development in the project area by about one million square feet to approximately 10.4 million square feet, while retaining the same number of residential units at 4,601. The zone change adjusted the planning area boundaries and redistributed or eliminated planned land uses, but did not increase the overall development potential or residential capacity allowed under the Specific Plan. The Disposition and Development agreement was made to facilitate the sale, leasing, and development of Tustin Legacy.

1.3.1.3 2013 ADDENDUM

An addendum to the FEIS/EIR was prepared to process a General Plan Amendment 2013-001, Specific Plan Amendment 2013-001, Development Agreement 2013-002, and Agreement for Exchange of Real Property between the City and South Orange County Community College District (SOCCCD) on 22 acres. The land transfer was located in the western part of the Specific Plan area near the intersection of Red Hill Avenue and Valencia Avenue. The project added a new local street, Bell Avenue, to service adjacent uses, added an allowable land use (private for-profit non-educational uses), and increased allowable building square footages within the education village (Neighborhood A).

2. Environmental Setting

2.1 PROJECT LOCATION

The proposed project, the Tustin Legacy Specific Plan (former MCAS Tustin), is in an urbanized area in the southern portion of the City of Tustin and the northwest portion of the City of Irvine in Orange County, California. The 1,606-acre project area includes 1,511 acres in Tustin and approximately 95 acres in Irvine. The major roadways that border the site are Red Hill Avenue on the west, Edinger Avenue on the north, Harvard Avenue on the east, and Barranca Parkway on the south. Jamboree Road transects the site and provides access to the State Route 261 (SR-261) which is a Toll Road. Regional access to the project area is also provided by State Route 55 (SR-55) via Edinger Avenue/Newport Avenue and Barranca Parkway/Dyer Road to the northwest, and by Interstate 5 (I-5) via Red Hill Avenue, Tustin Ranch Road and Jamboree Road to the northeast. Figure 1, *Regional Location*, and Figure 2, *Local Vicinity*, show the location of the project area within the regional and local contexts of the County of Orange and the cities of Tustin and Irvine, respectively.

2.2 EXISTING CONDITIONS

2.2.1 Existing Land Use

The Tustin Legacy Specific Plan area contains existing residential, commercial, and institutional development and vacant land. Existing residential development consists of four neighborhoods—Tustin Field, Columbus Square, Columbus Grove Tustin, and Columbus Grove Irvine. These neighborhoods were built during the last decade and total 2,507 units (402 units in Irvine and 2,105 in Tustin). Each of the neighborhoods has a range of housing types, including traditional single-family homes, row townhomes, triplexes, and multifamily housing in courtyard and stacked-flat configurations. The neighborhoods also have recreation facilities and parkland. In Tustin, existing commercial development consists of a large regional shopping center (approximately 1,016,000 square feet) called The District, which has over 75 businesses, including specialty and big box retail, restaurants, entertainment, and a variety of services. Existing institutional uses include Heritage School, which is operated by Tustin Unified School District and is currently used as a continuation school. The school itself has not yet opened. Other institutional uses include a regional law enforcement training facility in partnership with Rancho Santiago Community College District, an Army Reserve Center, the Village of Hope transitional housing/emergency shelter operated by the OC Rescue Mission, and a children and family care shelter operated in a partnership between the County of Orange Social Services Agency and Orangewood. In addition to these uses, the South Orange County Community College District (SOCCCD) has a small campus with approximately 14,680 square feet of housing that is the first phase of a larger mixed-use educational campus referred to as the Advanced Technology & Education Park (ATEP). These existing institutional uses total approximately 450,825 square feet. Three residential projects are under

construction—a 225-unit affordable housing community, a 533-unit apartment complex with 496 market rate units and 37 moderate income units, and a 375-unit single-family neighborhood.

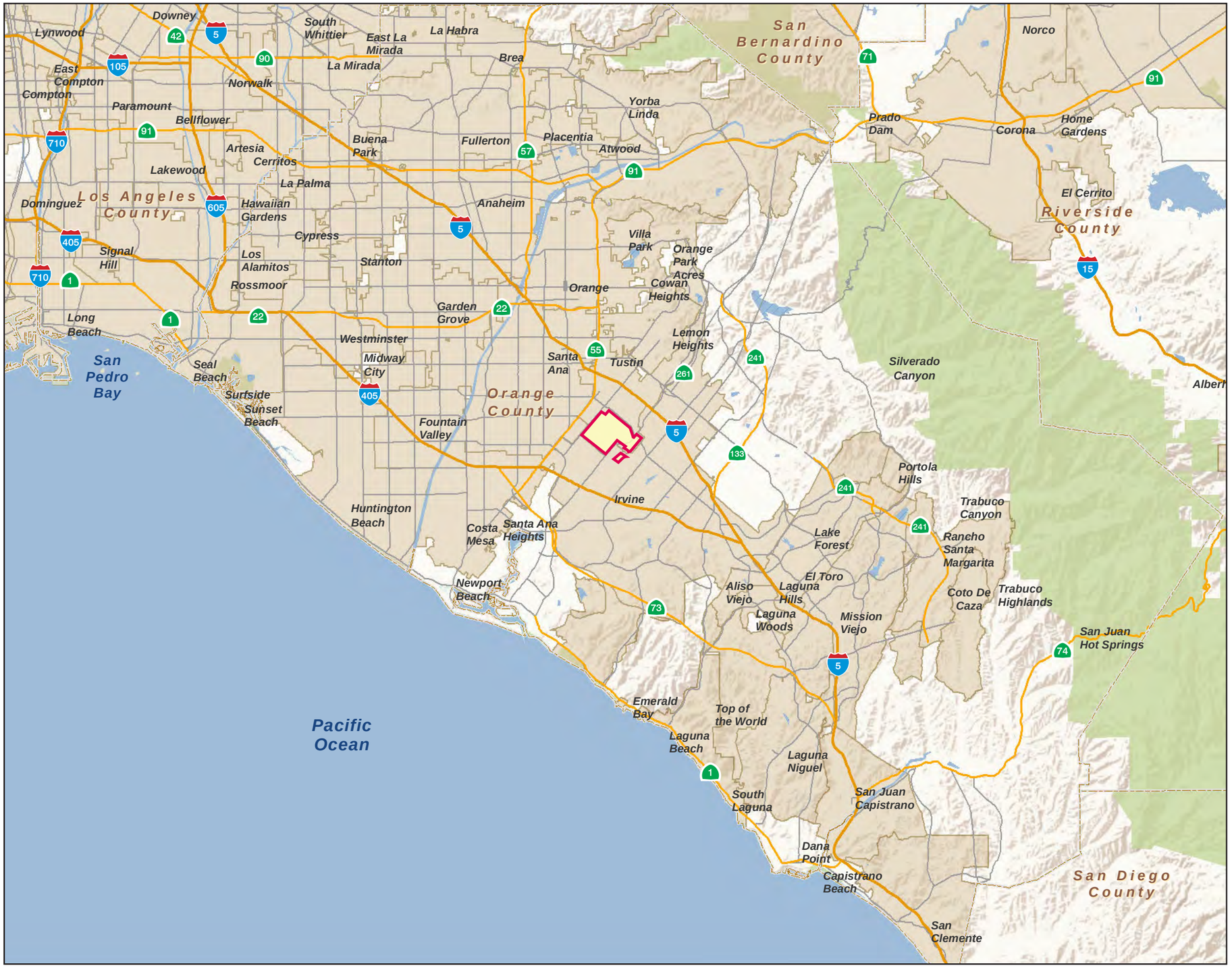
In the City of Irvine, the Irvine Unified School District has a small campus called the Creekside Education Center on approximately 20 acres. Approximately 8 acres have been developed on the site with administration facilities, Creekside High School, and Irvine Adult School. These uses comprise 35,400 square feet of building space. A 15,000-square-foot central kitchen and 4,000-square-foot culinary arts institute were recently approved on a 4-acre portion of the site. Approximately 867 acres of the project area are vacant or contain unoccupied buildings from the former Marine Corps Air Station (MCAS). The project area currently has 12 acres of public and private neighborhood parks in residential neighborhoods between both cities.

2.2.2 Surrounding Land Uses

The project area is surrounded to the west by commercial and industrial uses; to the north by single-family residential, industrial, and commercial uses; to the east by single-family residential and multifamily residential uses; and to the south by commercial and industrial uses.

Figure 1

Regional Location



MCAS Boundary

California Counties

CITY OF TUSTIN

TUSTIN LEGACY SPECIFIC PLAN

INITIAL STUDY

TUS.11-1
9/8/2014

0 1
Scale (Miles)

PLACEWORKS

2. Environmental Setting

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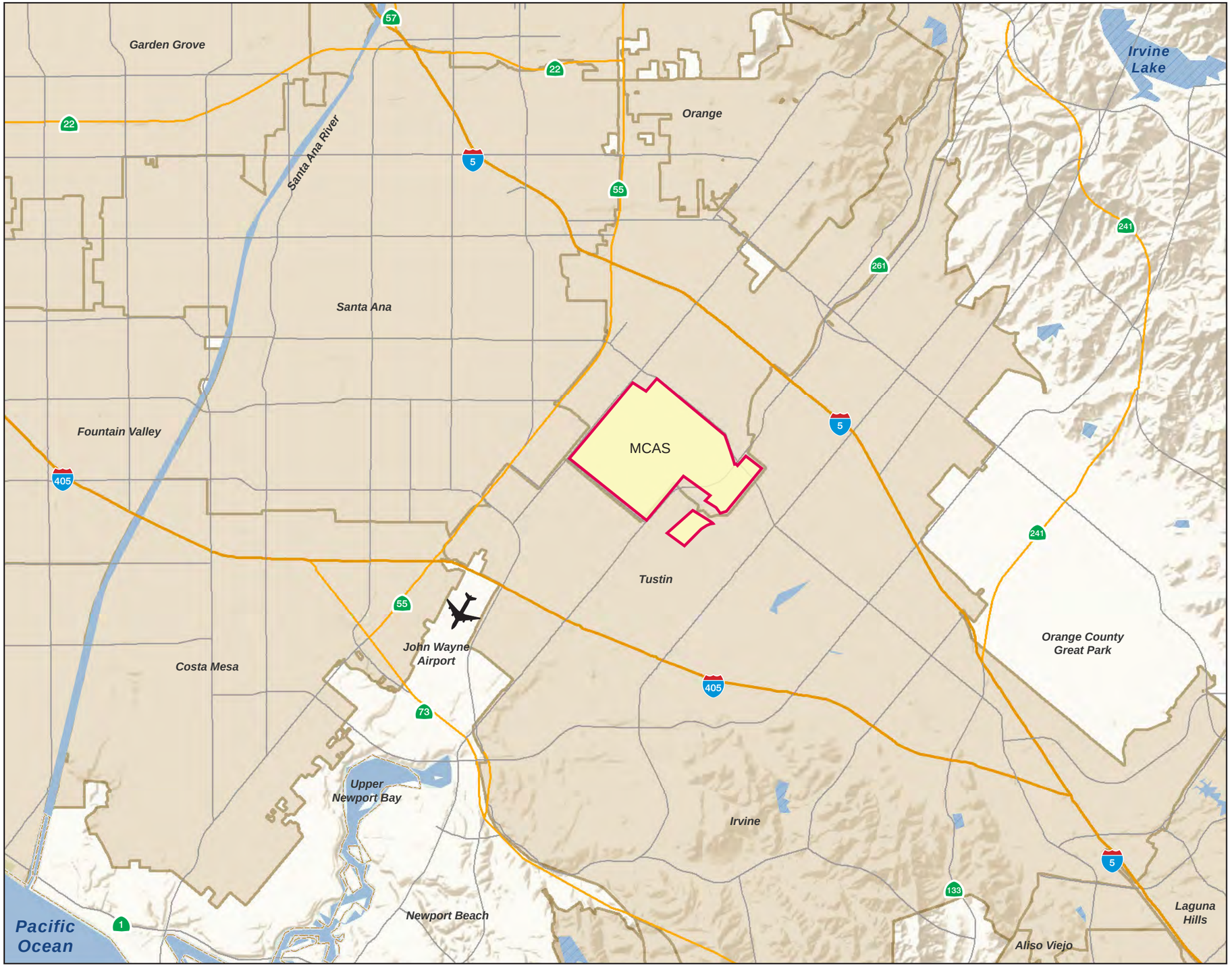
Figure 2

Local Vicinity



MCAS Boundary

CITY OF TUSTIN

TUSTIN LEGACY SPECIFIC PLAN

INITIAL STUDY

TUS.11-1
9/8/2014

0 1
Scale (Miles)

PLACEWORKS

2. Environmental Setting

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3. Project Description

3.1 PROJECT BACKGROUND

3.1.1 Adopted MCAS Tustin Specific Plan

Specific Plans act as a bridge between the General Plan and individual development proposals. Jurisdictions may adopt Specific Plans by resolution or ordinance. The MCAS Tustin Specific Plan (described throughout as "Adopted Specific Plan") was adopted by ordinance on February 3, 2003, and established the zoning for the 1,606-acre project area. It also established the necessary plans, development standards, regulations, infrastructure requirements, design guidelines, and implementation programs on which subsequent, project-related development is founded. It is intended that local public works projects, design review plans, detailed site plans, grading and building permits, or any other action requiring ministerial or discretionary approval applicable to the project area be consistent with the Specific Plan. The Specific Plan was amended six times between 2010 and 2014 in response to changing market conditions. In 2011, the City developed a Disposition Strategy as a recommended framework for future development in the project area. Most recently, the City used the Strategy to facilitate three projects in the area with The Irvine Company, Saint Anton, and Standard Pacific resulting in the development of market rate and affordable apartments. The purpose of this Specific Plan Amendment is to focus on the remaining, undeveloped lands owned by the City of Tustin.

3.2 PROJECT CHARACTERISTICS

"Project," as defined by the California Environmental Quality Act (CEQA) Guidelines Section 15378(a), means "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700." The CEQA Guidelines further explain that a project refers to the activity that is being approved and that may be subject to several discretionary approvals by governmental agencies (Section 15378[c]).

3.2.1 Statement of Objectives

The overall purpose of amending the Tustin Legacy Specific Plan (proposed project, formerly known as MCAS Tustin Specific Plan) is to provide comprehensive direction—in terms of revisions to development regulations, design guidance, and implementation of open space, circulation, and other infrastructure—for the remaining project area owned by the City of Tustin, while implementing the goals and policies of the City of Tustin General Plan. The overarching goal of this Specific Plan Amendment is to reposition the City's remaining undeveloped lands in light of current and future market conditions in residential, office, and commercial development; changing demographics and consumer preferences in the Orange County market;

and new opportunities to attract uses and create places that will benefit the greater Tustin community. The proposed project is guided by the following objectives:

1. Implement a revised land use and urban design plan for the community that weaves the existing development into an updated comprehensive vision for achieving a better balance of residential, commercial, and employment uses, well connected by a variety of transportation modes, parks, and open space.

2. Reposition the remaining undeveloped lands in Planning Area 15 to be transit oriented in terms of site design, mixing and increased intensity of land uses, walkability, location and design of public spaces, and direct pedestrian access to the adjacent Tustin Transit Station.

3. Reposition the remaining undeveloped land in Planning Area 13-14 to become a new mixed-use urban center designed around a "ramblas" (or walking street) that connects to the adjacent Linear Park and regional shopping center.

4. Establish new zoning designations for mixed-use development that provides flexibility for both horizontal and vertical mixed-use projects in Neighborhoods D and G through Mixed-Use Urban and Mixed-Use TOD land use designations.

5. Preserve the Linear Park concept from the Adopted Specific Plan, and provide additional design direction related to trails, recreation activities, integration with adjacent development, and park design features.

6. Reposition Planning Area 8 as an entertainment and sports district that would include a range of commercial recreation, cultural, and entertainment uses within and adjacent to the Linear Park.

7. Implement an updated Mobility Plan for Tustin Legacy that ensures a well-connected system of roadways, pedestrian paths, bicycle routes, and bus and shuttle routes that provide safe and convenient access to uses within Tustin Legacy, the adjacent Metrolink Station, and other offsite destinations.

8. Maintain the existing nonresidential land use/trip budget total for Tustin Legacy, while allowing for the reallocation of trips between certain Neighborhoods, based on the revised mix of land uses for the remaining lands owned by the City of Tustin

3.2.2 Tustin Legacy Specific Plan Amendment (Modified Project)

The Tustin Legacy Specific Plan Amendment will guide development of the remaining undeveloped area in the City of Tustin. These remaining parcels would be sold, leased, or developed by the City of Tustin. Eventually these parcels would be developed by a number of landowners within the framework established by the Tustin Legacy Specific Plan. The Specific Plan Amendment calls for a range of residential product types and education, commercial, commercial/business, entertainment/recreation, and park land uses. Table 1, *Land Use Categories*, provides a description of the different land use categories in the Tustin Legacy Specific Plan. This Initial Study and forthcoming SEIR analyze the maximum development potential allowed by the Tustin Legacy Specific Plan Amendment. Changes to the land use plan are shown in Figures 3 and 4, *Existing*

Land Use Plan and *Proposed Land Use Plan*. Proposed neighborhoods are shown in Figure 5, *Proposed Neighborhood Plan*.

Table 1 Land Use Categories

Designation	Description
Mixed-Use Transit	Provides for transit-oriented, mixed-use developments with commercial retail and/or office on the ground floor and either residential units or office on upper floors. Allows for stand-alone residential uses as well, including senior housing.
Mixed-Use Urban	Provides for mixed-use developments with commercial retail and/or office on the ground floor and either residential units or offices on upper floors. Allows for stand-alone commercial and residential uses as well.
Commercial	Provides for development of a variety of retail and service commercial uses with the intent of supporting and complementing uses in the plan area and surrounding development.
Commercial/Business	Provides for the development of a variety of uses, including research and development, professional and creative office, retail, senior care facilities, and specialized employment and merchandizing uses.
Residential	Provides for a range of residential development and housing types, including single-family detached and attached and multifamily homes. This designation also requires the inclusion of park, open space, and trails.
Park	Provides for passive community park uses, community-level sports, and active recreation uses, including internal paseos and trails. It also provides for establishment of a major urban recreation amenity for community and countywide use.
Linear Park Overlay	Provides for the creation of a continuous linear park that runs in a diagonal direction across the project area and will include a variety of recreation, visitor-serving, and community-serving activities as well as a trail system and dual purpose park/detention area. The boundaries of the Linear Park Overlay, shown on Figure 4, are intended to be conceptual, pending final design.
Transitional/Emergency Housing	Provides for transitional housing and the adaptive use of existing military dormitory type structures for emergency housing, single occupancy housing, or congregate care uses. Also allows for supporting services, including food service.
Recreation/ Entertainment Core	Provides for a mix of commercial and hospitality uses, including hotel, commercial retail, entertainment, and commercial sports facilities. This designation also requires the inclusion of a major segment of the Linear Park.
Education Village	Provides for a mix of public-serving, office, institutional, and/or government uses. Supporting office, research and development, and commercial uses are permitted to complement educational uses.
Street Right-of-Way (ROW)	Accommodates local roads within the project. Does not include private drives or alleys.

3. Project Description

3.2.2.1 LAND USE PLAN

The Land Use Plan for the Tustin Legacy Specific Plan area has been divided into 14 segments, as described below. Segments of the site consist of either individual Planning Areas or combined Planning Areas (e.g., Planning Areas 4 and 5 are combined). Table 2, *Land Use Plan Statistical Summary*, provides the statistical summary for the Adopted Specific Plan and compares it to the land use plan for the Amended Specific Plan.

Figure 4, *Proposed Land Use Plan*, shows the proposed land uses by Planning Area. Land uses for 9 of the 22 planning areas in the Tustin Legacy Specific Plan will not be changed by the Specific Plan Amendment. Specifically, land uses in Planning Areas 1, 2, 3, 4-5, 6, 7, 20, 21, and 22 will remain the same. The proposed changes for the remaining planning areas are described below.

- **Planning Area 8.** This Planning Area would comprise 190 acres of the project area. The land use designation Recreation/Entertainment Core would apply to this area, providing flexibility for a range of uses, including hotel, commercial retail, commercial entertainment, public recreation, and a high school. Mixed-use development configurations would be permitted for commercial retail, service commercial, and/or office uses. A maximum of 1,547,690 square feet would be developed in Planning Area 8. This area would also contain a connecting portion of the Linear Park. Tustin Unified School District requires a 40-acre portion of this Planning Area for a high school.
- **Planning Area 9–12.** Planning Area 9–12 would comprise 117 acres of the project area. Ninety-four acres of the site would be designated as Commercial/Business use with a maximum of 1,588,198 of developable building square footage. An entrance to the Linear Park from Barranca Parkway would be provided in this Planning Area.
- **Planning Area 13–14.** This Planning Area would comprise 124 acres of the project area. A land use designation of Mixed-Use Urban allows for a variety of residential and commercial/business uses on 117 acres. A maximum of 1,672 dwelling units and 606,000 square feet would be developed in Planning Area 13–14. This area includes a 533-unit multifamily residential project currently under construction that is nearing completion. The Linear Park in this Planning Area would connect adjacent sections of the Linear Park in Planning Areas 8 and 9–12.
- **Planning Area 15.** Planning Area 15 would comprise 271 acres of the project area. This Planning Area would consist of 184 acres of Mixed-Use Transit-oriented development and 86 acres of residential use. A maximum of 2,814 dwelling units and 1,095,200 square feet would be developed in Planning Area 15. The Mixed-Use Transit designation provides flexibility for residential, office, commercial retail, and commercial service uses in a vertical or horizontal configuration. This Planning Area would also contain a portion of the Linear Park. This area includes a senior community, a 375-unit single-family residential project that is nearly completed and a 225-unit affordable housing community currently under construction.
- **Planning Area 16–19.** This Planning Area currently comprises 103 acres of the project area, including 85 acres of commercial retail and 14 acres of military/government use. The Planning Area currently allows for a maximum of 1,486,553 square feet of development. Existing development accounts for 1,016,000 square feet of regional commercial retail and entertainment uses as well as 40,846 square feet of military/government use. The current military operations would be relocated

to a parcel in Planning Area 1, and the site would be designated for commercial use, allowing for an expansion of the adjacent commercial retail development.

Table 2 Land Use Plan Statistical Summary

PA	Land Use	Specific Plan Acres	Adopted Specific Plan		Proposed Amended Specific Plan		Difference (Proposed – Current)
			Max Residential Units	Max Non-residential Sq. Ft.	Max Residential Units	Non-residential Sq. Ft.	
1	Education Village	120	-	2,279,050	-	2,254,200	(24,850) Sq Ft
2	Community Park	29	-	40,531[1]	-	1,000	(39,531) Sq Ft
3	Transitional/ Emergency Housing	5		133,294	-	133,294	No Change Sq Ft
4–5	Residential	106	925	-	895[2]	-	(30) DU
6	County Regional Park	85	-	574,992	-	574,992	No Change
7	Commercial	21	-	248,292	-	248,292	No Change
8[3]	Recreation/ Entertainment Core	190	-	1,976,692	-	1,547,690	(429,002) Sq Ft
9–12	Commercial/ Business	117	-	1,267,324	-	1,588,198	320,874 Sq Ft
13-14	Mixed-Use Urban	124	891	2,780,587	1,672[4]	606,000	781 DU (2,174,587) Sq Ft
15	Mixed-Use Transit	271	1,214	503,410	2,814[5]	1,095,200[6]	1,600 DU 591,790 Sq Ft
16–19	Commercial	103	-	1,483,553	-	1,483,553	No Change
20	Residential	29	376	-	376	-	No Change
21	Residential	127	793	-	654	-	(139) DU
22	Residential	73	402	-	402	-	No Change
	ROW	206	-	-	-	-	-
	TOTAL	1,606	4,601	11,287,725	6,813[7]	9,532,419	2,212 DU (1,755,306) Sq Ft

Notes:
1 Existing Buildings.
2 Does not include 180 density bonus units.
3 PA 8 and PA 13-14 were combined in the Adopted Specific Plan they are broken out in the Amended Specific Plan.
4 Does not include 157 density bonus units.
5 Does not include 33 density bonus units.
6 Includes Senior Community as a commercial use.
7 Total does not include 370 density bonus units.

3. Project Description

3.2.2.2 NONRESIDENTIAL LAND USE/TRIP BUDGET

The nonresidential land use/trip budget tracking system was developed as a mechanism for managing the forecast vehicular trips generated by the nonresidential land use mix in the Adopted Specific Plan. In order to manage the availability of roadway capacity for the remaining, undeveloped land, the trip budget tracking system will continue to be monitored with this Specific Plan Amendment. Although all land uses are accounted for in the total average daily trips (ADT) associated with potential development for the Specific Plan, the trip budget applies only to nonresidential uses. The tracking system establishes a maximum limit on the ADT generated from nonresidential uses in each neighborhood within the Specific Plan area and designates them for each neighborhood. That limit is identified in the trip budget, which summarizes the square footage of nonresidential uses in each neighborhood by Planning Area and the corresponding ADT.

The Specific Plan Amendment would not impact the overall trip budget; however, it would require reallocation of trips between Planning Areas and a conversion between nonresidential and residential uses. The City's Community Development Department and Public Works Department are required to maintain the tracking system in order to update the current ADT status as it is impacted by each development project, ensuring that sufficient roadway capacity remains to accommodate later projects. The Planning Area Trip Budget shows the reallocation of trips by Planning Area as proposed in the Specific Plan Amendment.

3.2.2.3 PARKS, OPEN SPACE, AND TRAILS

Parks and open space are provided throughout the project area in the form of regional, linear, community, and neighborhood parks. Within the City of Tustin, the proposed project includes a requirement from the City's General Plan for public open space of approximately 170 acres. In the Amended Specific Plan, this public open space would span parts of Planning Areas 2, 4-5, 8, 9–12, 13–14, and 15, as well as Planning Areas 20 and 21. In the remaining Planning Areas in the Specific Plan Amendment contributions to this park requirement and creation of the Linear Park are guided by a park overlay. The purpose is to allow flexibility in the ultimate design configuration of the park and its integration with surrounding uses. The Specific Plan Amendment would establish a minimum width requirement for the Linear Park through each Planning Area. Planning Area 6 provides an 85-acre regional park (not included in the 170-acre public open space requirement noted above). Additional neighborhood parks, school campus open space, or office park open space/green rooms are encouraged in the plan and would be developed as a network of dispersed parks and gathering areas within the design of individual projects. These areas would be connected by pedestrian and bicycle trails in accordance with requirements specified for each Planning Area. Planning Area 22 provides a total of 9.5 acres of park space in the City of Irvine.

Table 3 Amended Specific Plan Park Plan

Jurisdiction	Neighborhood	Planning Area	Minimum Acres	Notes
City of Tustin				
Counts toward City of Tustin requirement for 170 acres of public open space	A	2	29	Community Park
	B	4-5	4	Neighborhood Parks
	D	8	68	Legacy Park
	E	9-12	28	Legacy Park
	D	13-14	16	Legacy Park and Ramblas
	G	15	25	Legacy Park
Subtotal			170	
Does not count toward City of Tustin requirement for 170 acres of public open space	C	6	85	Regional Park
Subtotal			255	
City of Irvine				
	H	22	9.5	
Total			264.5	

3.2.2.4 TRANSIT ACCESSIBILITY

The proposed project accommodates current and future bus service to the area as planned by the Orange County Transportation Authority. A Metrolink transit plaza is located across from the project area on the corner of Edinger Avenue and Jamboree Road. The proposed Specific Plan Amendment requires Planning Area 15, across from the transit station, to be transit oriented in terms of scale, form, design, and mix of uses. A pedestrian bridge across Edinger Avenue would be the primary pedestrian and bicycle connection between the project area and the transit station. Vehicular access would be provided by additional street access along Edinger Avenue.

3.2.2.5 VEHICULAR ACCESS AND CIRCULATION

As part of the development plan for the Tustin Legacy Specific Plan, proposed infrastructure would include a pedestrian and vehicular circulation system, including roadways, landscaping, parks, street lighting, sidewalks, and pedestrian paths. The access and circulation plan is intended to efficiently integrate the proposed project into the City's transportation network. As shown in Figure 4 the proposed system of vehicular streets would provide convenient, efficient, and safe access to uses within the project boundaries as well as to offsite destinations.

Access into the project area is provided via entries along Barranca Parkway, Edinger Avenue, Jamboree Road, Red Hill Avenue, Armstrong Avenue, Tustin Ranch Road, Valencia Avenue, Warner Avenue, Bell Avenue, Harvard Avenue, and Moffett Drive. The circulation plan would connect Moffett Drive to Tustin Ranch

3. Project Description

Road. Access points proposed along the perimeter public streets would be coordinated with access to adjacent land uses. Internal circulation within each Planning Area would consist of smaller access roads or private streets serving development.

3.2.2.6 PARKING

The Tustin Legacy Specific Plan provides minimum parking requirements to serve the land uses within the project area. The Specific Plan Amendment would establish new standards for Planning Areas with mixed-use development and allow for the establishment of future parking districts. Parking requirements vary by land use type.

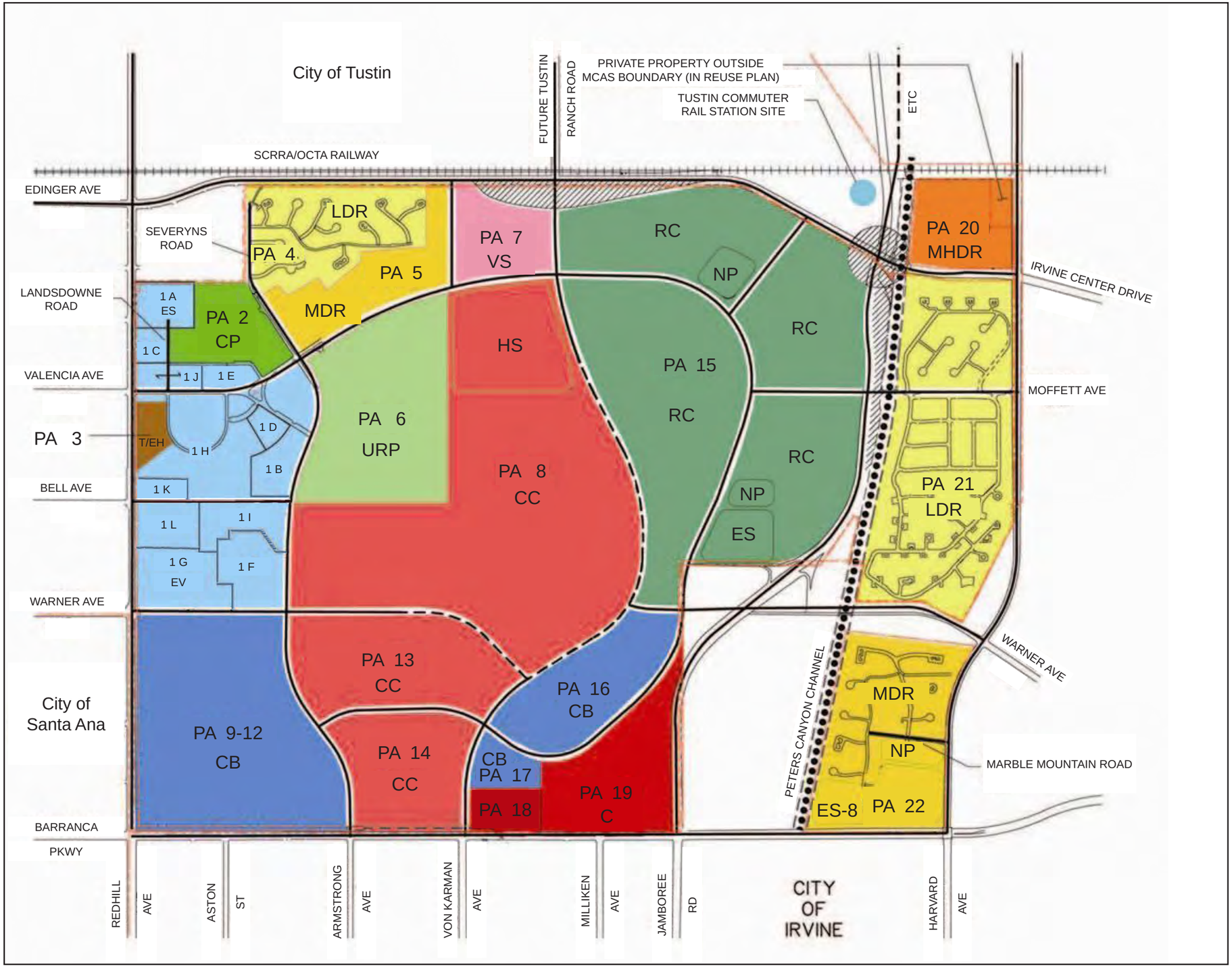
3.2.2.7 INFRASTRUCTURE

In addition to the proposed development, roadways and utilities will be required to support the proposed project. Proposed onsite infrastructure improvements include storm drains, wastewater, water (potable and reclaimed), and dry utilities that would connect to existing facilities adjacent to the project area.

3.2.2.8 PHASING

The proposed project is expected to be developed in phases triggered by implementation requirements. Similar to the Adopted Specific Plan, the Amended Specific Plan would use triggering mechanisms for phasing, including thresholds for circulation, bikeways/trails, water, sewer, storm drains, other utilities, and parks. Market demand and the timing of environmental cleanup efforts may also factor into the phasing plan.

Figure 3



Existing Land Use Plan

LDR	Low Density Residential (1-7 DU/Acre)
MDR	Medium Density Residential (8-15 DU/Acre)
MHDR	Medium High Density Residential (16-25 DU/Acre)
T/EH	Transitional/Emergency Housing
RC	Residential Core (1-7 DU/Acre, 8-15 DU/ Acre and 16-25 DU/Acre)
CB	Commercial Business
C	Commercial
VS	Village Services
CC	Community Core
EV	Education Village
CP	Community Park
URP	Urban Regional Park
NP	Neighborhood Park
	Regional Riding and Hiking Trail
ES-8	Elementary School (K-6)
ES-8	Elementary School (K-8)
HS	High School
	MCAS Tustin Boundary
	Irvine/Tustin/Santa Ana Boundary
	Specific Plan Boundary
	Military (Federal Property)
	Additional Road Right-of-Way

CITY OF TUSTIN

TUSTIN LEGACY SPECIFIC PLAN

INITIAL STUDY

TUS.11-1
9/8/2014

0 1,300
Scale (Feet)

PLACEWORKS

Note: Roadway alignments are conceptual; DU=Dwelling Unit; Roads shown indicate road right of way; Parks and school site locations are diagramatic only. Actual site locations will be approved at the time of subdivision maps; Within the City of Irvine, the density within the Medium Density Residential designation will not exceed 12.5 dwelling units per acre.

3. Project Description

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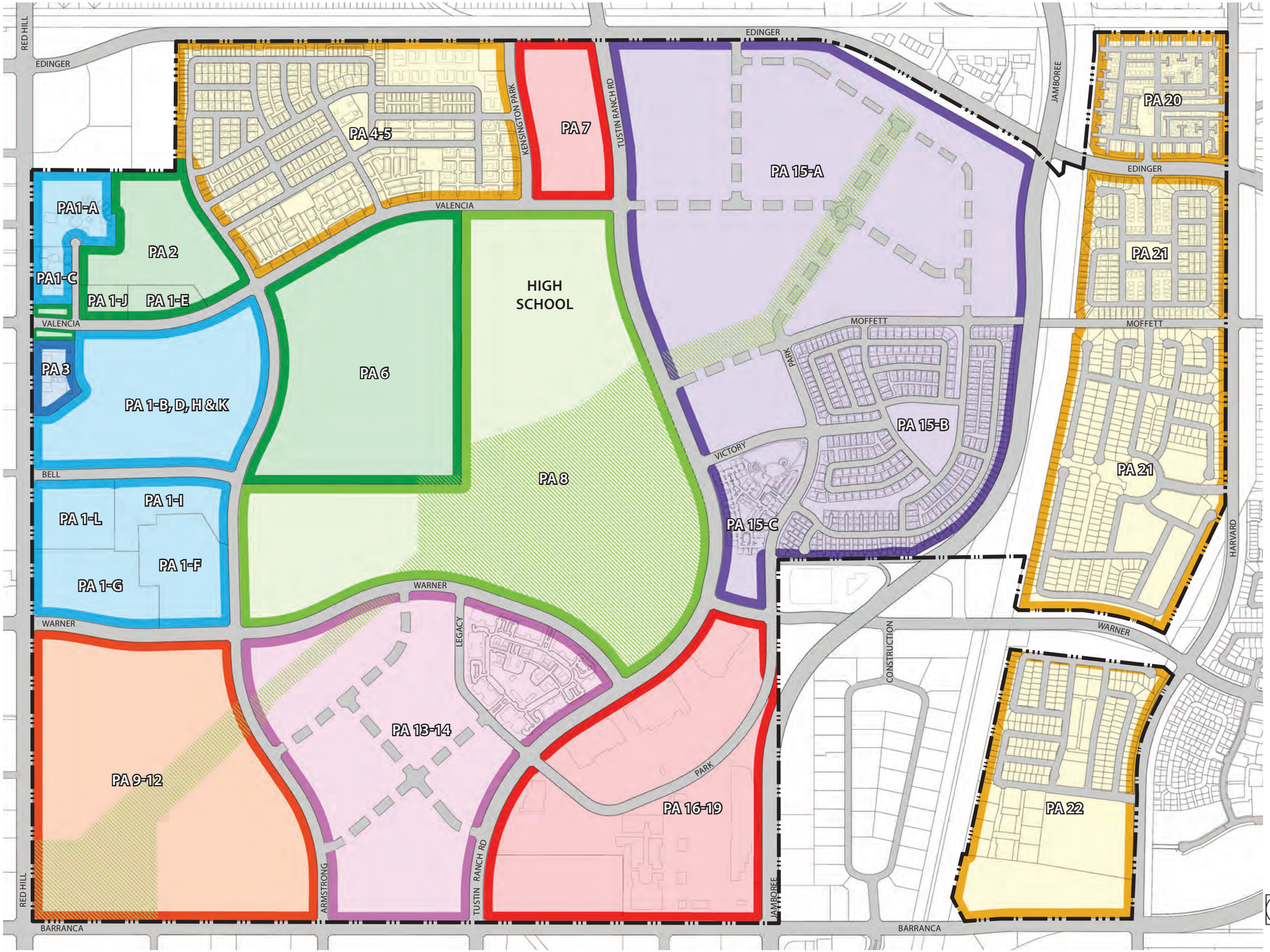
Figure 4

Proposed Land Use Plan



- Project Boundary
- Education Village
- Transitional / Emergency Housing
- Commercial / Business
- Commercial
- Residential
- Park
- Recreation / Entertainment Core
- Mixed-Use Transit
- Mixed-Use Urban
- Right-of-Way
- Linear Park Overlay

TUS.11-1
2/20/2015

0 1,000
Scale (Feet)

PLACEWORKS

CITY OF TUSTIN
TUSTIN LEGACY SPECIFIC PLAN
INITIAL STUDY

3. Project Description

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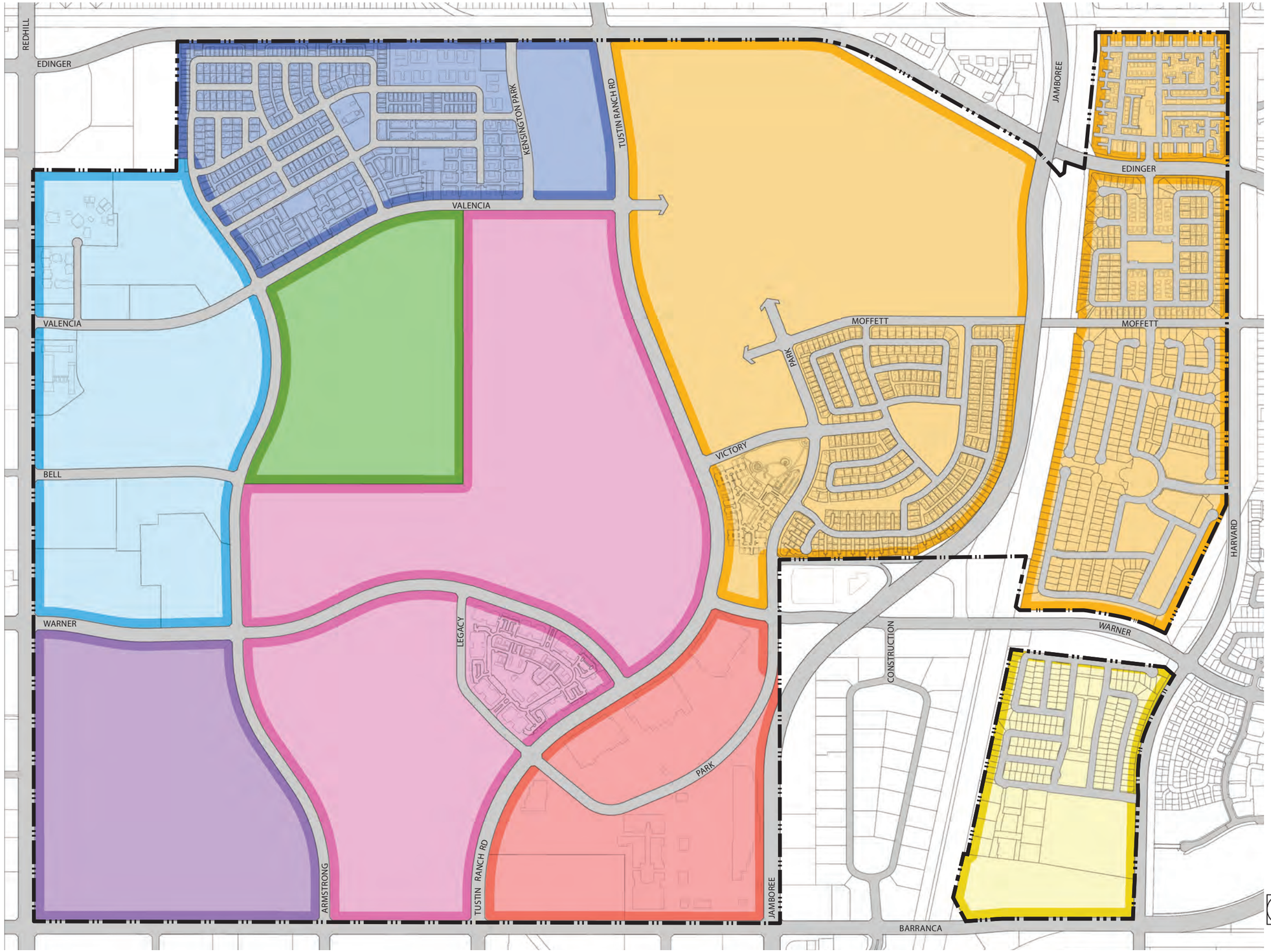
3. Project Description

Figure 5

Proposed Neighborhood Plan



Project Boundary

Neighborhood A

Neighborhood B

Neighborhood C

Neighborhood D

Neighborhood E

Neighborhood F

Neighborhood G

Neighborhood H

CITY OF TUSTIN

TUSTIN LEGACY SPECIFIC PLAN

INITIAL STUDY

TUS.11-1
3/4/2015

0 1,000
Scale (Feet)

PLACEWORKS

3. Project Description

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4. Environmental Checklist

4.1 BACKGROUND

1. **Project Title:** Tustin Legacy Specific Plan Amendment (MCAS Tustin Specific Plan Amendment)

2. **Lead Agency Name and Address:**
   City of Tustin
   300 Centennial Way
   Tustin, CA 92780

3. **Contact Person and Phone Number:**
   Justina Willkom, Assistant Director - Planning
   714.573.3115

4. **Project Location:**
   The approximately 1,606-acre project area in central Orange County includes 1,511 acres in the City of Tustin and approximately 95 acres in in the City of Irvine; and is bounded by Red Hill Avenue on the west, Edinger Avenue on the north, Harvard Avenue on the east, and Barranca Parkway on the south.

5. **Project Sponsor's Name and Address:**
   City of Tustin
   300 Centennial Way
   Tustin, CA 92780

6. **General Plan Designation:** MCAS Tustin Specific Plan

7. **Zoning:** MCAS Tustin Specific Plan

8. **Description of Project**
   The Tustin Legacy Specific Plan Amendment would revise permitted land uses in 5 of the 14 segments (or 22 Planning Areas) comprising the project area, and would permit development of 2,212 additional housing units, and 1,755,306 fewer square feet of nonresidential land uses than the Adopted Specific Plan. The project is described in more detail in Section 3.2, *Project Characteristics*.

9. **Surrounding Land Uses and Setting:**
   The project area is surrounded to the west by commercial and industrial uses; to the north by single-family residential uses and industrial and commercial uses; to the east by single-family residential and multifamily residential uses; and to the south by commercial and industrial uses.

4. Environmental Checklist

10. Other Public Agencies Whose Approval Is Required:

- Santa Ana Regional Water Quality Control Board (approve water quality management plans for projects developed pursuant to the Specific Plan Amendment)
- Orange County Fire Authority (Plan check for building plan review and emergency access)

4.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist and analysis provided in Section 5.

☐ Aesthetics	☐ Agricultural and Forest Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☒ Hydrology / Water Quality
☒ Land Use / Planning	☐ Mineral Resources	☒ Noise
☒ Population / Housing	☒ Public Services	☐ Recreation
☒ Transportation / Traffic	☒ Utilities / Service Systems	☒ Mandatory Findings of Significance

4.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☒ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

3/31/15
Date

Elizabeth A. Binsack
Printed Name

City of Tustin
For

4.4 EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) **Earlier Analyses Used.** Identify and state where they are available for review.

   b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) **Mitigation Measures.** For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significant.

The environmental checklist and evaluation of potential impacts are provided in Section 5.

4. Environmental Checklist

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5. Environmental Analysis

This section provides a checklist and evaluation of environmental impacts of the proposed project. Mitigation measures that were previously adopted pursuant to the FEIS/EIR and are applicable to the project are identified.

5.1 AESTHETICS

5.1.1 Prior Environmental Findings

The FEIS/EIR identified aesthetic impacts of implementation of the Specific Plan land use changes. Visual impacts were considered significant if sensitive viewers (foreground residential viewers along Edinger Avenue and Harvard Avenue) would experience strong contrast or if there would be strong contrast to areas of high scenic quality. Contrast was measured by comparing the project features with the major features in the existing landscape. A strong contrast is identified where the contrast element: 1) demands attention, 2) is not overlooked, and 3) is dominant in the landscape.

The FEIS/EIR evaluated views of the Specific Plan area from the surrounding viewshed and determined that development would alter the appearance of the area to varying degrees. Specific Plan development would alter the appearance of the project area as seen from the surrounding viewshed, and views from within the site. Development would create visual contrast between new development and existing scattered buildings, hardscape, and vacant land in various portions of the project area over the approximately 20-year development duration. However, the FEIS/EIR determined that the only significant visual impact identified in the FEIS/EIR was the potential loss of both blimp hangars, which would change existing foreground, middle-ground, and background views.

Hangars 28 and 29 are listed on the National Register of Historic Places (NRHP); the two hangars and some appurtenant structures have been determined eligible for listing as a National Historic District. Since the two hangars are each 178 feet high and 1,088 feet long, they are visible from several miles away. Specific Plan development could demolish both hangars and the other appurtenant structures and improvements that are elements contributing to eligibility for National Historic District listing. The loss of both hangars was identified as a significant and unavoidable visual impact. Measures intended to mitigate the loss of the hangers as iconic features were identified in the Memorandum of Agreement associated with the Specific Plan, including requirements for a written history, documentary video, and exhibit. As discussed under Subsection 5.5.1, *Cultural Resources*, of this Initial Study, all mitigation measures identified in Stipulation III of the agreement have been satisfied.

Despite the presence of substantial vacant area in the Specific Plan area, it is in a heavily urbanized context. Surrounding land uses, including residential, commercial, and other uses, are visible from all areas of the

project. The San Gabriel Mountains to the north and Santa Ana Mountains to the east are visible from many vacant areas onsite as well as from some surrounding land.

Impacts to the visual character of the site from within the site were identified as potentially significant as the land transitioned to create more sensitive viewers. Mitigation Measure Vis-1 requires an urban design plan to provide for distinct and cohesive architectural and landscape design as well as harmony with adjacent landscaping.

The FEIS/EIR found that the MCAS Specific Plan would increase the number and intensity of light sources onsite—such as through addition of street lights, parking lot lights, and exterior building lights. However, it concluded that impacts would not be significant, since lights would only be visible from close range due to the site's flat topography and surrounding structures. Glare would be minimized through design controls as part of the design review and approval processes of the two cities.

The 2004 Supplemental EIR determined that if one hangar were retained, impacts to aesthetic resources would be less than significant; and impacts would remain significant and unavoidable if both hangars were demolished.

The 2006 Addendum updated the FEIS/EIR to reflect new sensitive views due to new residential development within the MCAS Specific Plan west of Harvard Avenue. The 2006 Addendum concluded that although views from previously identified sensitive viewers were altered with the new development, the development was implemented in compliance with the MCAS Specific Plan development standards and design guidelines. The new development was visually consistent with existing residential development.

The 2013 Addendum found that there would be no new impacts related to aesthetics. It determined that although there would be an increase in floor area ratio (FAR), the land uses would be the same as previously analyzed and would not change building height restrictions, setbacks, signage, and other development standards. It found that there were no new or substantial difference aesthetic impacts that would result from development of the project and the overall intensity and general character of the project site would not be substantially altered.

5.1.2 Current Conditions

Based on the County of Orange Master Plan of Scenic Highways, there are no designated scenic roadways or scenic vistas in the project vicinity. The sensitive viewers identified in the FEIS/EIR are still present; however, new residential uses have been developed onsite as described in Section 2.2.1, *Existing Land Use*. These developments have been implemented in accordance with the development regulations and design standards outlined in the Specific Plan, and no new impacts to sensitive viewers onsite have occurred. The new residential development is visually consistent with the surrounding residential uses.

5.1.3 Impacts Associated with the Modified Project

Would the modified project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Have a substantial adverse effect on a scenic vista?				X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X	

Comments:

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. As indicated above, there are no designated scenic highways or vistas in the project area. The project area offers distant views of the Santa Ana Mountains to the east and the San Gabriel Mountains to the north. The Specific Plan Amendment would introduce new land uses in some areas, including transit-oriented and mixed uses, resulting in an increase of 2,212 residential units and a decrease of 1.7 million square feet of nonresidential land uses. The change in land use mix and associated building types would alter the visual appearance of the project site but would not result in a change in effect on a scenic vista. No new significant impacts would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The project area is not within the vicinity of a designated state scenic highway. The nearest designated state scenic highway to the site is State Route 91 (SR-91), about 8.5 miles to the north (Caltrans 2011). Implementation of the Specific Plan Amendment would not impact scenic resources in a state scenic highway.

The FEIS/EIR concluded that demolition of both historic hangars would be a significant visual impact, while the loss of only one hangar would be less than significant. As discussed above in Subsection 5.1.1, all mitigation measures identified in Stipulation III of the agreement related to loss of the hangers have been

satisfied. The proposed changes in land use would not result in changes to the analysis and conclusions from the FEIS/EIR with respect to the hangars. No new significant impacts would occur.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment would result in changes to the mix of land uses allowed in 5 of the 14 site segments. However, the Specific Plan Amendment would include development standards and development standards and design guidelines, including building height requirements, setbacks, and signage that represent the change in land uses while maintaining or enhancing the character of the Specific Plan area. The Specific Plan Amendment would not significantly alter allowable heights in the project area such that it would degrade the quality or character of the site. For example, the Adopted Specific Plan allows heights of up to 150 feet in Planning Areas 8 and 13-14 with some exceptions allowing up to 180 feet; the Specific Plan Amendment would not increase allowable building heights beyond these limits. Further, the Specific Plan Amendment would be required to comply with Mitigation Measure Vis-1 from the FEIS/EIR requiring an urban design plan to provide for distinct and cohesive architectural and landscape design as well as harmony with adjacent landscaping. The urban design plan required under Mitigation Measure Vis-1 would require updating in response to modifications to the land use plan proposed in the Specific Plan Amendment. No new significant impacts would occur.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. No new substantial impacts related to lighting would occur. The Specific Plan Amendment would convert some of the entitled nonresidential uses to residential. Consistent with the conclusions in the FEIS/EIR, residential lighting would be similar to light sources associated with the existing commercial, industrial, and residential uses adjacent to the project area. Additionally, lighting added onsite by implementation of the Specific Plan Amendment would only be visible from close range due to the flat topography of the site and structures on and surrounding the site. No new significant lighting impacts would occur.

5.2 AGRICULTURE AND FORESTRY RESOURCES

5.2.1 Prior Environmental Findings

The FEIS/EIR identified 702 acres of Important Farmland onsite: 682 acres of Prime Farmland and 20 acres of Farmland of Statewide Importance. In 1999, 530 acres were leased for cultivation with row crops and citrus. Conversion of farmland to nonagricultural uses was identified as a significant and unavoidable impact in the FEIS/EIR. No substantial change to the previous analysis was identified in the 2004 Supplemental EIR, 2006 Addendum, or 2013 Addendum.

5.2.2 Current Conditions

Since certification of the FEIS/EIR, all agricultural activities have ceased. The current California Department of Conservation's Farmland Mapping and Monitoring (FMMP), published August 2011, has been updated to reflect the absence of agricultural activities. The Specific Plan area is mapped as "Urban and Built-Up Land" and "Other Land."

5.2.3 Impacts Associated with the Modified Project

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Modified Project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?					X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?					X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?					X
d) Result in the loss of forest land or conversion of forest land to non-forest use?					X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?					X

5. Environmental Analysis

Comments:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. Although the prior environmental findings identified farmland within the Specific Plan area, there are currently no farmland or agricultural activities in the project area. No prime farmland, farmland of statewide importance, or unique farmland is mapped within the project area on the California Important Farmland Finder maintained by the Division of Land Resource Protection (DLRP 2014). The project would not convert mapped important farmland to nonagricultural uses, and no impact would occur. Additionally, no change from the previous analysis is required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. There is no zoning for agricultural uses onsite. The site is zoned MCAS Tustin Specific Plan. Land use designations allowed under this zoning include designations for residential, commercial, recreational, and institutional uses. Williamson Act contracts restrict the use of privately owned land to agriculture and compatible open-space uses under contract with local governments; in exchange, the land is taxed based on actual use rather than potential market value. There are no Williamson Act contracts in effect on the proposed project area. No impact would occur. Additionally, no change from the previous analysis is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. Land onsite is zoned MCAS Tustin Specific Plan. Land use designations allowed under this zoning include designations for residential, commercial, recreational, and institutional uses. No land is designated for forest land, timberland, or timberland production on the project area. No impact would occur and no change from the previous analysis is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. There is no forest land onsite. Vegetation types identified in the FEIS/EIR were agricultural crops and nonnative grasslands, not forest land. Much of the site has been subsequently developed with urban uses (see Chapter 2, *Environmental Setting*). No impact would occur and no change from the previous analysis is required.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project area is surrounded by built-out urban uses in Irvine, Santa Ana, and Tustin. There is no mapped important farmland near the site, and implementation of the Specific Plan Amendment would not indirectly cause conversion of mapped important farmland to nonagricultural uses or the conversion of forest land to nonforest use. No impact would occur and no change from the previous analysis is required.

5.3 AIR QUALITY

5.3.1 Prior Environmental Findings

The FEIS/EIR addressed consistency of the MCAS Specific Plan with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plans (AQMPs), construction-related emissions, operational emissions, localized carbon monoxide (CO) "hotspots," and air toxics. The FEIS/EIR concluded that the MCAS Tustin Specific Plan would not be consistent with the 1994 and 1997 AQMPs because these plans did not consider the planned intensity assumed by the Specific Plan. This impact was significant and unavoidable, and a statement of overriding considerations was adopted.

The FEIS/EIR concluded that there were significant and unavoidable construction-related (short-term) emissions that exceeded the SCAQMD thresholds. Even with incorporation of mitigation measures, impacts were determined to remain significant and a statement of overriding considerations was adopted.

Operational emissions were also considered significant and unavoidable even with implementation of the City's Traffic Reduction/Traffic Demand Management program (Ordinance No. 1062, approved in 1991), which has policies to reduce long-term emissions. A statement of overriding considerations was adopted for this impact. However, the FEIS/EIR concluded that operational emissions from businesses would comply with SCAQMD's regulations for operation and would be less than significant.

The FEIS/EIR concluded that no sensitive receptors would be exposed to CO hotspots. The analysis included intersections with the highest traffic volumes and LOS during years 2005 and 2020.

The 2006 Addendum updated the air quality analysis due to changes in the regulatory environment and project. The 2006 Addendum determined that there was no substantial change and a reduced impact due to the reduction of nonresidential square footage and redistribution of residential uses. The project incorporated all applicable mitigation measures and revised MM AQ-1 to reflect amendments to Rules 402 and 403. No new impacts were identified.

The 2013 Addendum analyzed a specific project and updated the air quality analysis to identify construction and operational related impacts resulting from the construction of up to 816,929 square feet of academic office space and the extension of Bell Avenue. Based on this analysis it was determined that SCAQMD thresholds would not be exceeded and no new significant impacts would occur.

5. Environmental Analysis

5.3.2 Current Conditions

The Specific Plan area continues to be within the South Coast Air Basin (SoCAB) under the jurisdiction of the SCAQMD and California Air Resources Board (CARB). Since certification of the FEIS/EIR and subsequent analyses, there have been several changes to the regulatory environment. A new 2012 AQMP was adopted and a newer version (version 2013.2.2) of the California Emissions Estimator Model (CalEEMod) was released that has updated emissions factors. The emissions calculated for the Adopted Specific Plan were calculated using an outdated version of the model.

The existing conditions in the project area have changed since the FEIS/EIR. Based on the analysis provided in Section 5.3.3, an air quality analysis will be prepared for the SEIR. This analysis will update the environmental conditions based on the most current five years of air quality data in the SoCAB from a monitoring station operated by SCAQMD.

5.3.3 Impacts Associated with the Modified Project

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?		X			
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X				
d) Expose sensitive receptors to substantial pollutant concentrations?		X			
e) Create objectionable odors affecting a substantial number of people?				X	

Comments:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Change in Circumstances Requiring EIR Revisions. The SoCAB is designated nonattainment for ozone and fine particulate matter ($PM_{2.5}$) under the California and National ambient air quality standards (AAQS). As stated above, several updates to the AQMP have occurred since the FEIS/EIR. Although the overall intensity of development in the Specific Plan area would remain the same, the Specific Plan Amendment would increase residential units, which may cause population to exceed current growth projections for the area. This increase in population and the consistency of the project's regional emissions with the current 2012 AQMP would need to be evaluated in the SEIR.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Change in Project Requiring EIR Revisions. The Specific Plan Amendment would increase residential uses and decrease nonresidential uses. There would be changes in air quality emissions based on the new mix of land uses and on the new and updated air quality model with updated emissions factors. As part of the SEIR, an air quality technical analysis will be prepared to determine the change in short-term and long-term criteria air pollutant emissions from the project. CalEEMod will be used to model criteria air pollutant emissions from the approved MCAS Specific Plan and the proposed Specific Plan Amendment at buildout. The criteria air pollutant emissions analysis will be based on the average daily trip generation and/or vehicle miles traveled (VMT) for the approved project and the Specific Plan Amendment. The SEIR will compare the net increase in emissions at buildout to SCAQMD's regional significance thresholds and determine if there are any new significant impacts or mitigation measures required.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Change in Project Requiring EIR Revisions. The Specific Plan Amendment would increase residential uses and decrease nonresidential uses. There would be changes in air quality emissions based on the new mix of land uses and based on the updated air quality model with updated emissions factors. As part of the SEIR, an air quality technical analysis will be prepared to determine the change in short-term and long-term criteria air pollutant emissions from the project. CalEEMod will be used to model criteria air pollutant emissions from the approved MCAS Specific Plan and the proposed Specific Plan Amendment at buildout. The criteria air pollutant emissions analysis will be based on the average daily trip generation and/or VMT for the approved project and the Specific Plan Amendment. The SEIR will compare the net increase in emissions at buildout to SCAQMD's regional significance thresholds to determine whether there are any new significant impacts or mitigation measures required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Change in Circumstances Requiring EIR Revisions. In 2007, the SoCAB was designated attainment for CO under both the California and National AAQS. As identified in SCAQMD's 2003 AQMP and the 1992

Federal Attainment Plan for Carbon Monoxide, peak CO concentrations in the SoCAB were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2011). The proposed Specific Plan Amendment would not result in changes at any one intersection that would generate a CO hotspot. Consistent with the conclusions of the FEIS/EIR, CO hotspots are not an environmental impact of concern for the proposed project, and localized air quality impacts related to mobile-source emissions would be less than significant.

The Specific Plan Amendment would allow the same types of land uses that were analyzed in the FEIS/EIR. However, SCAQMD has given special attention to the siting of new sensitive receptors from exposure to elevated concentrations of toxic air contaminants (TACs). Further evaluation is required to identify types of land uses within 1,000 feet of the Tustin Legacy Specific Plan that are major sources of TACs, including offsite industrial land uses and Jamboree Road/State Route 261. If necessary, the SEIR will identify mitigation measures required for future projects within the Specific Plan to reduce potential impacts from exposure of sensitive receptors to substantial concentrations of TACs.

Detailed construction information would not be available at this program level of analysis. The SEIR will qualitatively analyze localized air pollution impacts from construction equipment exhaust and fugitive dust for their potential to elevate concentrations of air pollutants at the land uses surrounding the development sites. Mitigation measures to reduce potential impacts will be identified in the SEIR, as necessary.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Initial Study prepared for the FEIS/EIR concluded that the MCAS Specific Plan would not generate objectionable odor and did not require further analysis. The proposed change in land use mix from nonresidential to residential would not generate a substantial increase in odor generation. Residential uses may generate odors from backyard barbeque smoke, lawn mower exhaust, or application of exterior paints. The types and concentrations of odors generated would be typical of similar communities and the surrounding residential uses. The amount of nonresidential uses would be reduced, which would reduce odor generation from those uses. The project would be consistent with Section 3.11.7 of the MCAS Specific Plan, which requires uses that produce odors, toxic gases, or noxious matter detectable outside the property lines of the premises to be modified to prevent such emissions.

5.4 BIOLOGICAL RESOURCES

5.4.1 Prior Environmental Findings

Vegetation onsite was identified as cultivated fields and nonnative grassland in the FEIS/EIR. Only individual remnants of native plant species, but no intact native habitat, were identified. The FEIS/EIR determined that implementation of the Specific Plan would result in impacts to jurisdictional waters and wetlands and to

southwestern pond turtle. The FEIS/EIR did not find burrowing owls or suitable habitat for burrowing owl onsite. Mitigation measures were required in the FEIS/EIR and revised in the 2006 Addendum; the aforementioned impacts are less than significant after implementation of mitigation. Note that a capture and relocation plan was approved by California department of Fish and Wildlife (CDFW) for the southwestern pond turtle, and all turtles have been relocated.

The FEIS/EIR identified several potential jurisdictional waters onsite, including but not limited to ditches and drainages, the Santa Ana/Santa Fe Channel, the Barranca Channel, and Peters Canyon Channel. It identified impacts to 16.2 acres of jurisdictional waters, 2.4 acres of which were vegetated wetlands. The 2006 Addendum, which covered 1,511 acres of the project area in the City of Tustin, identified 0.68 acre of federally protected wetlands in that area. Mitigation measures for impacts to jurisdictional waters and wetlands were included in the FEIS/EIR and revised in the 2006 Addendum.

The 2006 Addendum also identified 0.8 acre of riparian area jurisdictional to CDFW onsite and concluded that development would result in a significant impact to that entire riparian area. Mitigation measures were identified in the FEIS/EIR that would reduce impacts to less than significant.

The FEIS/EIR determined that there would be no impacts to federally listed threatened or endangered plant or animal species. It found that there would be a direct impact to four loggerhead shrike, but that it would not have an overall adverse effect to the population in southern California.

The 2006 Addendum concluded that the Specific Plan area does not support wildlife movement.

5.4.2 Current Condition

As stated previously, many parts of the Specific Plan area are developed or currently under construction. Approximately 867 acres of the project area is vacant: either undeveloped or remnants of the former military operation, such as unoccupied buildings, asphalt-paved streets and parking lots, concrete sidewalks and pads, and landscaping/groundcover. Vacant land on site has largely been graded and contains no native vegetation. Additionally, the project area currently has 12 acres of public and private neighborhood parks in residential neighborhoods between both cities.

5.4.3 Impacts Associated with the Modified Project

Would the modified project:

5. Environmental Analysis

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?					X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?					X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?					X

Comments:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment would revise proposed land uses in 5 of the 14 site segments of the project area but would not change the overall development footprint of the Specific Plan. Portions of the vacant land identified as nonnative grassland in the FEIS/EIR have subsequently been developed and the entire project area has been graded. Implementation of the Specific Plan Amendment would not cause impacts to biological resources that were not previously analyzed in the FEIS/EIR. As stated, CDFW approved a pond

turtle relocation and mitigation plan for the project, and all turtles have been relocated. Mitigation Measures Bio-2, Bio-3, and Bio-4 would also be applicable to the modified project. Implementation of the Specific Plan Amendment would not result in new impacts to any special status species or their habitats, and mitigation measures would reduce impacts to less than significant. No new significant impacts would occur.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Riparian habitats are those occurring along the banks of rivers and streams. Riparian habitats next to streams and lakes are jurisdictional to CDFW. The jurisdictional delineation conducted for the FEIS/EIR identified Waters of the US and wetlands protected under the federal Clean Water Act; but not Waters of the State or riparian habitats jurisdictional to CDFW. The 2006 Addendum identified 0.8 acres of riparian habitat. The development area for the Specific Plan Amendment would be the same as the project area analyzed in the FEIS/EIR. No new areas would be developed. According to the 2013 Annual Mitigation Monitoring report, the City has 401, 404, and 1602 permits that apply to the Specific Plan area. These permits and responsibilities would be assigned to subsequent developers as applications are submitted. With implementation of MM Bio-1, impacts to areas under the jurisdiction of CDFW and Waters of the US would be reduced to a less than significant impact. Future developers would be required to obtain permits from CDFW, the Regional Water Quality Control Board (RWQCB), and the US Army Corps of Engineers (Corps). This would not result in a significant change in impact conclusions of the FEIS/EIR. No new significant impact would occur.

No sensitive natural communities have been identified onsite in previous environmental documentation. Nonnative grassland and cultivated fields were identified onsite in the FEIS/EIR; neither of these land cover types are considered sensitive natural communities and vacant land on site has been graded. No new significant impact would occur, and this impact will not be analyzed in the SEIR.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The development area for the Specific Plan Amendment would be the same as the project area analyzed in the FEIS/EIR. No new areas would be developed. According to the 2013 Annual Mitigation Monitoring report, the City has 401, 404, and 1602 permits which apply to the Specific Plan area. These permits and responsibilities would be assigned to subsequent developers as applications are submitted. With implementation of MM Bio-1, impacts to areas under the jurisdiction of CDFW and Waters of the US would be reduced to a less than significant impact. Future developers would be required to obtain permits from CDFW, RWQCB, and the Corps. This would not result in a significant change in impact conclusions of the FEIS/EIR. No new significant impact would occur.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. Existing vegetation onsite currently consists of landscaping in developed areas, nonnative grassland, and previously graded areas on vacant land. The area does not support wildlife movement or a wildlife corridor. Implementation of the Specific Plan Amendment would not interfere substantially with wildlife movement, and no significant impact would occur. Buildout of the Specific Plan Amendment would not result in the removal of substantial amounts of trees or shrubs that could be used by nesting migratory birds protected under federal and state laws. No impact would occur.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. As determined by the FEIS/EIR, there are no local policies protecting biological resources impacted by implementation of the Specific Plan Amendment. No impact would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project area is within the plan area of the Orange County Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP); however, the site is not within a reserve established under the NCCP/HCP. The nearest such reserve is the Upper Newport Bay Nature Preserve and Ecological Reserve, about 3.1 miles to the southwest (NROC 2005). Project implementation would not conflict with the NCCP/HCP and no impact would occur.

5.5 CULTURAL RESOURCES

5.5.1 Prior Environmental Findings

Hangar 28 (northern hangar) and Hangar 29 (southern hangar) are both listed on the National Register of Historic Places. The two hangars, along with other resources onsite, were determined to be eligible for listing as a discontiguous National Historic District. Other resources include Buildings 28A and 29A, mooring mats 1 through 5, and the roads connecting these structures to Hangars 28 and 29. When previous environmental documents were prepared, it was unknown whether implementation of the Adopted Specific Plan would involve demolition of both, one, or neither of the hangars. It was determined that the loss of both hangars would be a significant and unavoidable impact. Mitigation measures were required for impacts to the two hangars and the above-described related historical resources. Impacts were identified as significant and unavoidable after implementation of mitigation.

In accordance with Section 106 of the National Historic Preservation Act, the City of Tustin, the State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation, the Department of the Navy, and the County of Orange executed a Memorandum of Agreement that identified measures to mitigate the impacts of the destruction of portions of the eligible historic district, including the removal of Hangar

28 and Hangar 29 (RBF 2008). Pursuant to the agreement, the County of Orange conducted a marketing study of Hangar 28 and the City of Tustin conducted a marketing study of Hangar 29. Both jurisdictions reached the conclusion that there is no economically viable use for the hangars, requiring implementation of mitigation measures from Stipulation III of the agreement. The required mitigation measures included a written history, documentary video, and exhibit. All mitigation measures identified in Stipulation III of the agreement have been satisfied.

One archaeological site was known to be located on the project area; this site was destroyed by construction of two tanks before 1971. The site was described as containing shells, and an arrowshaft straightener, mortar, and metate were reportedly discovered at the site. Impacts to archaeological resources were identified as less than significant after mitigation in the FEIS/EIR.

Soils underlying the site were identified as having moderate to high sensitivity for paleontological resources in the FEIS/EIR. Impacts to paleontological resources were identified as less than significant after mitigation in the FEIS/EIR.

5.5.2 Current Conditions

Other than new development that has occurred in the project area, no changes related to cultural resources have occurred since the FEIS/EIR and subsequent environmental review.

5.5.3 Impacts Associated with the Modified Project

Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				X	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	
d) Disturb any human remains, including those interred outside of formal cemeteries?				X	

5. Environmental Analysis

Comments:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Section 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally a resource is considered "historically significant" if it meets one of the following criteria:

i) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

ii) Is associated with the lives of persons important in our past;

iii) Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values;

iv) Has yielded, or may be likely to yield, information important in prehistory or history.

The changes to land uses in the Specific Plan Amendment would not result in any new impacts to historic resources. As stated above, mitigation measures required prior to demolition of the hangars have been implemented. The land use changes proposed would not result in new impacts or result in changes to the prior environmental findings. No new significant impact would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Archaeological Resources are prehistoric or historic evidence of past human activities, including structural ruins and buried resources. As concluded in the FEIS/EIR, archaeological resources could be buried in site soils and could be damaged by ground-disturbing activities pursuant to the Specific Plan Amendment. Although the site has been graded, development may require grading to an increased depth. The development footprint for the Specific Plan Amendment is within the impact area evaluated in the FEIS/EIR. The project would be required to comply with FEIS/EIR mitigation measures to reduce impacts to less than significant (MM Arch-2). The proposed project would not result in a substantial change from the archaeological resources impacts identified in the FEIS/EIR.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Paleontological resources are fossils, which are the recognizable remains or evidence of past life on earth; including bones, shells, leaves, tracks, burrows, and impressions. The ground disturbance footprint of the Specific Plan Amendment would be the same as that analyzed in the FEIS/EIR. The project would be

required to comply with FEIS/EIR mitigation measures to reduce impacts to less than significant (MM Paleo-1 and Paleo-2). The proposed project would not result in a substantial change from paleontological resources impacts identified in the FEIS/EIR.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project area, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. The project would comply with existing law, and potential impacts to human remains would be less than significant. Furthermore, the development footprint is within the impact area evaluated in the FEIS/EIR and no new impacts would occur.

5.6 GEOLOGY AND SOILS

5.6.1 Prior Environmental Findings

Impacts related to collapsible soils, regional subsidence, expansive soils, slope instability, and erosion were identified in the FEIS/EIR as less than significant after compliance with state and local regulations and standards, and established engineering procedures and techniques. No impacts related to landslides or mudflows were identified.

No active faults were identified on or next to the site. The FEIS/EIR identified 10 active faults ranging from 10 miles to 48 miles from the project area, and estimated to be capable of generating earthquakes ranging from magnitude 6.5 to 7.8. Impacts related to surface rupture of a fault, strong ground shaking, ground failure including liquefaction, tsunamis and seiches, and flooding due to dam failure after an earthquake were all identified as less than significant.

Site soils were identified as highly to very highly expansive in the FEIS/EIR. Measures identified in the FEIS/EIR for reducing hazards from expansive soils include removal of clay-rich soils and replacement with a specified thickness of non-expansive granular soil beneath structures, concrete slabs, and footings; improving the expansive soil with presaturation of expansive materials; supplemental reinforcement of the building foundations and slabs; and installing post-construction drainage control to minimize the collection of water under or adjacent to structures. Impacts were identified as less than significant in the FEIS/EIR after compliance with state and local regulations.

5. Environmental Analysis

5.6.2 Current Conditions

Other than subsequent grading, remediation, and development activities, there are no changes to the geology and soils conditions onsite as evaluated in the FEIS/EIR.

5.6.3 Impacts Associated with the Modified Project

Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.					X
ii) Strong seismic ground shaking?				X	
iii) Seismic-related ground failure, including liquefaction?				X	
iv) Landslides?					X
b) Result in substantial soil erosion or the loss of topsoil?				X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?					X

Comments:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed to prevent construction of buildings used for human occupancy on the surface of active faults, in order to minimize the hazard of surface rupture of a fault to people and buildings. Before cities and counties can permit development within Alquist-Priolo Earthquake Fault Zones, geologic investigations are required to show that the sites are not threatened by surface rupture from future earthquakes. Active earthquake faults are faults where surface rupture has occurred within the last 11,000 years. The nearest active fault to the site is the Newport-Inglewood Fault 10 miles to the southwest (HNTB 2001; CGS 2013). Consistent with the findings of the FEIS/EIR, the site is not in an Alquist-Priolo Earthquake Fault Zone (CGS 2014). Buildout of the Specific Plan Amendment would not subject people or structures to hazards from surface rupture of a known earthquake fault, and no impact would occur.

ii. Strong seismic ground shaking?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. As identified in the FEIS/EIR, the project area is in a seismically active region, and strong ground shaking is likely to occur within the design lifetimes of structures that would be built pursuant to the Specific Plan Amendment. Structures for human occupancy must be designed to meet or exceed the most recent California Building Code (CBC) standards for earthquake resistance. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground motion with specified probability of occurring at the site. Requirements for geotechnical investigations are included in CBC Appendix J Section J104. Additional requirements for subdivisions requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code Sections 17953 to 17955 and in Section 1802 of the 2013 CBC. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness. Future buildings and structures would meet the City of Tustin Building Code and CBC, and the project would not alter the conclusions of the FEIS/EIR related to seismic ground shaking. No new substantial impact would occur.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Liquefaction refers to loose, saturated sand or silt deposits that behave as a liquid

and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. A high potential for liquefaction onsite was identified in the FEIS/EIR due to the presence of shallow groundwater and loose soils. The entire project area is mapped as a Zone of Required Investigation for Liquefaction by the California Geological Survey (CGS 2001). The FEIS/EIR identified engineering techniques that would reduce hazards associated with liquefaction to less than significant, including: (1) excavation and removal or recompaction of potentially liquefiable soils; (2) in-site ground densification; (3) other types of ground improvement; (4) deep foundations that have been designed to accommodate liquefaction effects; (5) reinforced shallow foundations; and (6) design of the proposed structures or facilities to withstand predicted ground softening and/or predicted vertical and later ground displacements to an acceptable level of risk. In addition**,** geotechnical investigations for projects onsite are required to evaluate the potential for liquefaction on the affected project area and provide measures to minimize hazards arising from liquefaction. The project would not result in any substantial changes to the environmental impacts previously evaluated in the FEIS/EIR. Compliance with required geotechnical investigations and engineering techniques would result in less than significant impacts and no new substantial impact would occur.

iv. Landslides?

No Impact. The project area is relatively flat with a south slope of about 0.4 percent grade. Consistent with the findings of the FEIS/EIR, no impact would occur from landslides. Buildout of the Specific Plan Amendment would not create landslide hazards, and no new impact would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The development footprint of the Specific Plan Amendment would be the same as that analyzed in the FEIS/EIR of the Adopted Specific Plan.

Construction

Erosion control measures are required for construction projects of one acre or more in areas under the Statewide General Construction Permit, Order No. 2012-0006-DWQ, issued by the State Water Resources Control Board (SWRCB) in 2012. Projects obtain coverage by developing and implementing a Stormwater Pollution Prevention Plan (SWPPP) estimating sediment risk from construction activities to receiving waters, and specifying best management practices (BMPs) that would be used by the project to minimize pollution of stormwater. Categories of BMPs used in SWPPPs are described below in Table 4, *Construction BMPs*.

Table 4 Construction BMPs

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
Non-stormwater Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

Source: CASQA 2003.

Requirements for SWPPPs have increased since adoption of the Specific Plan—for instance, the requirement to estimate sediment risk to receiving waters. Implementation of erosion control and sediment control BMPs by projects developed pursuant to the Specific Plan Amendment would minimize erosion. No new significant impact would occur.

Operation

At buildout of the Specific Plan Amendment the entire site would be developed with residential, commercial, and institutional uses; roadways and other hardscape; parks; and landscaped areas. Projects developed pursuant to the Specific Plan Amendment would be required minimize runoff and include BMPs to reduce sediment during storm events. This would minimize erosion from the affected project area. No new substantial impacts would occur.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

5. Environmental Analysis

Liquefaction and Landslides

Liquefaction impacts associated with buildout of the Specific Plan Amendment would be less than significant, as substantiated above in Section 5.6.2.a.iii. No impacts would occur with respect to landslides (see Section 5.6.2.a.iv).

Lateral Spreading

Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The site may be susceptible to lateral spreading due to the high potential for liquefaction onsite. Consistent with the findings of the FEIS/EIR, all grading operations and construction would be conducted in conformance with the City of Tustin Grading Manual and most recent version of the CBC. Further, geotechnical investigations for projects developed pursuant to the Specific Plan Amendment would be required to identify engineering controls to eliminate any potential for lateral spreading. No new significant impacts would occur.

Ground Subsidence

Ground subsidence is the lowering of the ground surface over a wide area, most often due to withdrawal of water or oil. Subsidence resulting from groundwater withdrawal has not been reported in the region (HNTB 2001). Groundwater levels in the Orange County Water District's service area, which includes the project area, are managed to avoid overdraft of the underlying groundwater basin (OCSD 2009). The Specific Plan Amendment would not change the conclusions of the FEIS/EIR, and no substantial new impact would occur.

Collapsible Soils

Compressible soils susceptible to some consolidation were identified in the FEIS/EIR as likely over the entire project area, especially east of Peters Canyon Channel. The Specific Plan Amendment would be required to be consistent with the most recent CBC and incorporate engineering techniques for removal of soils unsuitable for supporting proposed structures and replacement with engineered fill soils capable of supporting such structures. No new significant impact would occur.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The FEIS/EIR identified site soils as highly to very highly expansive and included engineering techniques to reduce hazards from expansive soils. Potential remedial measures may include: (1) removal of clay-rich soils and replacement with a specified thickness of nonexpansive granular soil beneath structures, concrete slabs, and footings; (2) improving expansive soil with presaturation of expansive materials and/or (3) supplemental reinforcement of building foundations and slabs; (4) installing post-construction drainage control to minimize the collection of water under or adjacent to structures. The FEIS/EIR concluded that impacts would be less than significant with incorporation of these techniques required by regulatory compliance. Future site-specific development is required to evaluate the expansion potential of onsite soils and implement

remedial measures in accordance with local requirements. The Specific Plan Amendment would not change the conclusions of the FEIS/EIR and no new substantial impacts would occur.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Specific Plan Amendment buildout would include construction of sewer mains and sewer laterals. The Irvine Ranch Water District provides wastewater treatment for the project area. No impact would occur.

5.7 GREENHOUSE GAS EMISSIONS

5.7.1 Prior Environmental Findings

The FEIS/EIR did not evaluate greenhouse gas (GHG) emissions impacts because it was not included in the CEQA Guidelines Appendix G checklist and the City of Tustin did not have adopted thresholds at the time of preparation.

5.7.2 Current Conditions

Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. The primary source of GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).

5.7.2.1 REGULATORY SETTING

Regulation of GHG Emissions on a National Level

The United States Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (EPA 2009). The EPA's endangerment finding covers emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6 (the first three are applicable to the proposed project).

Regulation of GHG Emissions on a State Level

Assembly Bill 32, the Global Warming Solutions Act (2006) (AB 32) was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions to 1990 levels by 2020. AB 32 directed the California Air Resources Board (CARB) to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. CARB adopted the Scoping Plan in 2008 and released an update to the plan in May 2014.

Regulation of GHG Emissions on a Regional Level

In 2008, Senate Bill 375 (SB 375) was adopted to achieve the GHG emissions reductions targets established in the Scoping Plan for the transportation sector as it relates to local land use decisions that affect travel behavior. Implementation is intended to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations with local land use planning to reduce vehicle miles traveled and vehicle trips. Specifically, SB 375 requires CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. The Southern California Association of Governments (SCAG) is the MPO for the southern California region, which includes the counties of Orange, Los Angeles, San Bernardino County, Riverside, Ventura, and Imperial. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035. SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted April 2012 (SCAG 2012).

5.7.3 Impacts Associated with the Modified Project

Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X				
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X	

Comments:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Change in Project Requiring EIR Revisions. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

The Specific Plan Amendment would increase residential uses and decrease nonresidential uses. As a result, there would be changes in GHG emissions based on the new mix of land uses and based on the new air quality model (CalEEMod) that has been updated with new emission factors and is described above under Section 5.7.2, *Air Quality*. As part of the SEIR, an air quality technical analysis will be prepared to determine the change in GHG emissions from the modified project.

The CalEEMod will be used to model GHG emissions from the adopted MCAS Specific Plan and the proposed Specific Plan Amendment at buildout. The SEIR will compare the change in emissions at buildout to SCAQMD's regional significance thresholds and determine whether there are any new significant impacts or mitigation measures required. The SEIR will also address the effects of climate change within California and the City of Tustin and describe in further detail the history of California's GHG emissions regulations—including AB 32, the Global Warming Solutions Act (2006), and SB 375, The Sustainable Communities and Climate Protection Act (2008). The EIR will include a discussion the GHG reduction targets of AB 32 as identified in CARB's Scoping Plan and SCAG's regional per capita transportation targets for passenger vehicles under SB 375.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Applicable plans adopted for the purpose of reducing GHG emissions include the CARB Scoping Plan and the SCAG 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). A consistency analysis to these plans is presented below:

CARB Scoping Plan

CARB's 2008 Scoping Plan is California's GHG reduction strategy to achieve the state's GHG emissions reduction target established by AB 32, which is 1990 levels by year 2020. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the corporate average fuel economy standards, and other early action measures would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. The proposed Specific Plan amendment would not result in an increase in the total number of trips generated at buildout. In addition, new buildings constructed are required to comply with the most recent Building and Energy Efficiency Standards and California Green Building Code. The Specific Plan

Amendment's GHG emissions would be reduced from compliance with statewide measures that have been adopted since AB 32 was adopted.

SCAG 2012 RTP/SCS

In addition to AB 32, the California legislature passed SB 375 to connect regional transportation planning to land use decisions made at a local level. SB 375 requires the MPOs to prepare an SCS in their regional transportation plans to achieve the per capita GHG reduction targets. SCAG's 2012 RTP/SCS was adopted April 4, 2012, and incorporates strategies identified in the Orange County subregional SCS. The plan is a regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light duty trucks in the Southern California region. It identifies multimodal transportation investments, including bus rapid transit, light rail transit, heavy rail transit, commuter rail, high-speed rail, active transportation strategies (e.g., bikeways and sidewalks), transportation demand management strategies, transportation systems management, highway improvements (interchange improvements, high-occupancy vehicle lanes, high-occupancy toll lanes), arterial improvements, goods movement strategies, aviation and airport ground access improvements, and operations and maintenance to the existing multimodal transportation system. SCAG's RTP/SCS identifies that land use strategies that focus new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network, which emphasizes system preservation, active transportation, and transportation demand management measures (SCAG 2012). SCAG's 2012 RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers.

The Specific Plan Amendment would result in the redevelopment of the former MCAS Tustin site and provide and support mixed use development within the planning area. The planned commercial and retail development would serve the planned and existing residential land uses. Planning Area 15 would be designated Mixed-Use Transit, and its development would be required to utilize the Tustin Metrolink Station. The Specific Plan Amendment would not interfere with SCAG's ability to implement the regional strategies outlined in the 2012 RTP/SCS.

With regard to CEQA Section 21166 and CEQA Guidelines Section 15162(a), the changes proposed by the proposed project would not result in any new impacts or increase the severity of impacts with respect to conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would be less than significant.

5.8 HAZARDS AND HAZARDOUS MATERIALS

5.8.1 Prior Environmental Findings

5.8.1.1 HAZARDOUS MATERIALS

Multiple hazardous materials sites were identified in the FEIS/EIR. Contaminants include trichloroethylene, trichloropropane, jet fuel, petroleum hydrocarbons, volatile organic compounds, metals, and polynuclear aromatic hydrocarbons. Asbestos-containing materials were identified in 77 buildings onsite, and

nonresidential buildings built before 1980 were assumed to contain lead-based paint. Impacts were identified in the FEIS/EIR as less than significant after remediation of environmental contamination per existing agreements and regulatory compliance. Subsequent analysis provided in the 2006 and 2013 Addenda identified progress made by the ongoing cleanup activities.

Three hazardous materials sites within the project area where remediation was ongoing were identified in the 2006 Addendum.

- **Operating Unit 1A (OU 1A):** Trichloroethylene and trichloropropane were found in groundwater and soil. Site remediation—consisting of pumping and treating groundwater is ongoing.

- **Operating Unit 1B (OU 1B):** Paint Stripper Disposal Area and Drum Storage Area No. 2: Trichloroethylene was found in groundwater and soil. Site remediation—consisting of pumping and treating groundwater is ongoing.

- **Operating Unit 4B:** Consists of three subareas: Mingled Plumes Area, Drainage Area No. 1 Ditch 5A South, and Paint Locker and Drum Storage Area. Trichloroethylene and other chlorinated hydrocarbons were found in groundwater. Remedial action for groundwater contamination—consisting of in situ bioremediation and monitored natural attenuation—as well as monitoring are ongoing. (BonTerra 2006).

Other cases of hazardous materials identified in the FEIR/EIS have been closed; site closure includes a determination by a regulatory agency that no further remedial action is required. Multiple compliance programs are in place allowing ongoing cleanup of hazardous materials sites by the Navy after the property was transferred. The 1999 Federal Facilities Site Remediation Agreement provides for coordinated remediation via these compliance programs under the oversight of DTSC in coordination with the Santa Ana RWQCB. The Navy will remediate all hazardous materials sites overlain by proposed residential uses to residential standards pursuant to the compliance programs.

5.8.1.2 AIRPORT-RELATED HAZARDS

The FEIS/EIR acknowledged that development within the Specific Plan area would be subject to Federal Aviation Administration (FAA) height restrictions and reviewed by the Airport Land Use Commission (ALUC) for Orange County to ensure there is no interference with flight operations. The FEIS/EIR determined that compliance with these requirements would reduce impacts to less than significant.

In 2008, ALUC approved a comprehensive update of the airport Environs Land Use Plan (AELUP) for John Wayne Airport. The Specific Plan area remains within the Height Restriction Zone for the John Wayne Airport. Conditions applicable to the Specific Plan area have not changed.

5.8.2 Current Conditions

Responsibility for cleanup in the Specific Plan area remains unchanged. Soil and groundwater remediation has been ongoing since certification of the FEIS/EIR. Updates and analysis of this effort are provided in the analysis below.

5. Environmental Analysis

5.8.3 Impacts Associated with the Modified Project

Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X	
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X	

Comments:

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Hazards to the public or the environment arising from routine transport, use, or disposal of hazardous materials were identified as less than significant after regulatory compliance in the FEIS/EIR. Buildout of the Specific Plan Amendment would use similar types and amounts of hazardous materials as implementation of the Adopted Specific Plan. The use, transport, and disposal of hazardous materials would be required to comply with existing regulations of several agencies, including the Department of Toxic Substances Control (DTSC), the EPA, California Division of Occupational Safety and Health, Orange County Environmental Health, and the Orange County Fire Authority.[1] No new significant impact would occur.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment permits the same types of land uses as did the Adopted Specific Plan, although with increased residential units and decreased nonresidential building area. Construction and operation of projects developed pursuant to the Specific Plan Amendment would use similar types and amounts of hazardous materials as would projects permitted by the Adopted Specific Plan. Additionally, the Specific Plan Amendment consists of the same development area analyzed in the FEIS/EIR. Compliance with regulatory requirements would reduce hazards to the public and the environment from accidental release of hazardous materials. The on-going clean-up and remediation of hazardous materials contamination within the Specific Plan area would not result in a significant hazard to the public. Remediation is required to implement several measures to ensure safe standards and manage or isolate potentially hazardous substances. This activity occurs under the oversight of DTSC in coordination with the Regional Water Quality Control Board. No new substantial impact would occur.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Heritage Elementary School, at 15400 Lansdowne Road, is near the western site boundary and is not currently operating as an elementary school. The facility is used by some Tustin Unified School District (TUSD) administrative functions and temporarily houses two TUSD high school programs—Hillview Continuation High School and Sycamore High School, an independent study program—during modernization work at the two campuses housing those programs. TUSD also requires 40 acres of Planning Area 8 for a future high school site. The Adopted Specific Plan identified three school sites. TUSD and Irvine

[1] Orange County Environmental Health is the Certified Unified Program Agency (CUPA) for most of Orange County including the cities of Tustin and Irvine; the Certified Unified Program coordinates and makes consistent enforcement of several state and federal regulations governing hazardous materials. The Orange County Fire Authority provides fire protection for both Tustin and Irvine.

5. Environmental Analysis

Unified School District would be the agencies responsible for the development of schools within the Specific Plan area. The school districts are required to comply with CEQA Guidelines Section 15168 addressing potential health impacts resulting from exposures to hazardous materials, wastes, and substances on school facilities. They must also comply with additional site testing required by the State Education Code.

The Specific Plan Amendment would not permit development of industrial land uses that would emit hazardous emissions or use substantial amounts of hazardous materials. The Specific Plan Amendment would permit development of residential, commercial, institutional, and open space land uses. Hazards from hazardous materials used in such land uses to students at the proposed high school and at Heritage Elementary School would be less than significant after compliance with regulations, as described above in Sections 5.8.2.a and 5.8.2.b. No new substantial impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. A site management plan was updated for the hazardous materials sites with ongoing remediation. (BRAC 2010). According to this report, significant progress has been made in cleanup and monitoring of the sites, including:

- **OU 1A and OU 1B:** In accordance with the Final Operation and Maintenance Plan, biweekly, monthly, and quarterly inspections as well as effluent sampling is conducted. Groundwater monitoring is completed on a quarterly basis to ensure performance and optimization of the remedial systems. The Final Operating Properly and Successfully Report was issued in February of 2010 and demonstrates that remedial actions selected to address VOCs in ground water have bene implement in accordance with US EPA guidelines.

- **OU 3:** OU 3 is in the long term monitoring phase for groundwater, surface water monitoring. Site inspections ensure that institutional controls remain in place.

- **OU 4B:** The Final Record of Decision (ROD) was issued in January 2010 and finalized in April 2010. The ROD sites the final remedy for the groundwater and documents the no further action determination for soil at OU 4B. The final groundwater remedy was divided into two types depending on the level of concentration of pollutants. It requires In-Situ Bioremediation, Monitored Natural Attenuation, and Institutional Controls for moderate concentration sites and Institutional Controls for low concentration sites.

These sites continued to be monitored for compliance. The Navy will remediate all hazardous materials sites overlain by proposed residential uses to residential standards pursuant to the compliance programs. The proposed development area for the Specific Plan Amendment has not changed from the analysis in the FEIS/EIR. No new significant impact would occur.

Hazardous Materials Database Search Update

The GeoTracker database maintained by the SWRCB was searched for hazardous materials sites on and within certain distances of the project area that were first listed in 2013 or 2014 in order to identify sites that were not listed when the last addendum to the FEIS/EIR was approved in April 2013 (see Table 5). The distances from the site used were one mile for an EnviroStor cleanup site; 0.5 mile for a leaking underground storage tank site; and 0.25 mile for hazardous waste generators listed pursuant to the Resource Conservation and Recovery Act and registered underground storage tanks.

Table 5 Hazardous Materials Sites in Specific Plan Area SWRCB

Site Name Address Distance from Project area	Reason for Listing and Regulatory Status	Databases Listed
Tustin Legacy Park, Neighborhood D Barranca Avenue and Tustin Ranch Road Onsite	Potential contaminants of concern benzene, diesel, ethylbenzene, gasoline; potential media affected soil. Site assessment December 2013; case open	GeoTracker Cleanup Program
EQR – Millikan Avenue LLC 16931 Millikan Ave., Irvine 2,520 feet southwest	Site assessment December 2013; case open.	GeoTracker Cleanup Program

Source: GeoTracker 2014

A workplan for removal of total petroleum hydrocarbons in soils was completed in November 2013 for Tustin Legacy Park Neighborhood D. Two contaminated areas were identified, both within Planning Area 13-14. Area 1 is about 60 feet by 75 feet by 3 feet deep under 8 feet of overlying soil; Area 2 is about 75 feet by 75 feet by 6 feet deep; soils formerly overlying the second area have been removed (Pacific States 2013). Approximately 11,600 square feet of additional contaminated soil were discovered next to Area 1 during grading operations (Pacific States 2014). Neither of the hazardous materials sites listed above in Table 6 is considered an environmental concern for the proposed project, since both sites are known to regulatory agencies and site assessments have been conducted at both sites. No new significant impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles or a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The FEIS/EIR determined that there were no significant airport safety hazards resulting from termination of operations at the MCAS Tustin. The Specific Plan area is within the AELUP for John Wayne Airport, subjecting portions of the site to height restrictions. The ALUC for Orange County reviews projects with buildings of a certain height (110 to 200 feet depending on location in the Specific Plan area) to reduce interference with flight operations. The proposed project would not increase the allowable building heights within these ranges. Any structures in the Specific Plan that exceed the height restrictions in the AELUP would also be subject to an obstruction evaluation by the FAA and ALUC to determine whether safety hazards would result. Consistency with these regulations would ensure airport-related safety hazards are less than significant. No new significant impact would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The FEIS/EIR determined that there were no significant airport safety hazards resulting from termination of operations at the MCAS Tustin. The Specific Plan area is within the AELUP for John Wayne Airport, subjecting portions of the site to height restrictions. The ALUC for Orange County reviews projects with buildings of a certain height (110 to 200 feet depending on location in the Specific Plan area) to reduce interference with flight operations. The proposed project would not increase the allowable building heights within these ranges. Any structures in the Specific Plan that exceed the height restrictions in the AELUP would be subject to an obstruction evaluation by the FAA and ALUC to determine whether safety hazards would result. Consistency with these regulations would ensure airport-related safety hazards are less than significant. No new significant impact would occur.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Tustin Police Department oversees emergency management for the City. The City's Emergency Plan was approved in 2011. The Specific Plan Amendment would change the mix of land uses but is not expected to substantially alter or interfere with the implementation of the City's Emergency Plan. Construction of projects pursuant to the Specific Plan Amendment would not block public roadways and would not interfere with emergency access to the project area or surrounding communities. No new substantial impact would occur.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. No fire hazard severity zones are mapped onsite by the California Department of Forestry and Fire Prevention (CAL FIRE 2011). Development within the Specific Plan area is required to comply with Orange County Fire Authority regulations. Buildout of the Specific Plan Amendment would not expose people or structures to substantial hazards from wildland fires, and no substantial new impact would occur.

5.9 HYDROLOGY AND WATER QUALITY

5.9.1 Prior Environmental Findings

5.9.1.1 WATER QUALITY

Groundwater under the site ranges from brackish to saline; shallow groundwater onsite is contaminated with hazardous materials in several places. Water quality impacts were identified in the FEIS/EIR as less than

significant after regulatory compliance. No substantial change was identified in subsequent environmental reviews.

5.9.1.2 HYDROLOGY

Planning Area 20 was designated as a 100-year flood zone by the Federal Emergency Management Agency (FEMA). Peters Canyon Channel was also identified as a 100-year flood zone. The balance of the project area was outside of 100-year flood zones. Specific Plan development would require storm drainage improvements to reduce flood hazards in Planning Area 20. Impacts were identified as less than significant in the FEIS/EIR.

Implementation measures included in the 2004 Supplemental EIR required drainage studies and that projects make fair-share contributions to the Orange County Flood Control District for construction of flood control facilities required by the affected projects. No substantial change from previous analysis was identified in the 2006 Addendum.

5.9.2 Current Conditions

In 2004, a Master Runoff Management Plan for Tustin Legacy (RBF Consulting) was approved by the City of Tustin. The Master Plan covered the ultimate buildout of the Tustin Legacy property, including all 22 Planning Areas and their ultimate land uses—e.g., residential, mixed use, commercial, and park space. A master backbone storm drain system was designed and sized to accommodate the ultimate buildout peak flow for each Planning Area and land use. The design of the master storm drain system also includes significant detention systems to control and manage downstream peak flows. Since the approval of the Master Plan, much of the backbone storm drain infrastructure and detention systems have been constructed.

5.9.3 Impacts Associated with the Modified Project

Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Violate any water quality standards or waste discharge requirements?				X	

5. Environmental Analysis

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	X				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site				X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X	
f) Otherwise substantially degrade water quality?				X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X	
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X	
j) Inundation by seiche, tsunami, or mudflow?					X

Comments:

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Construction

Requirements for waste discharge from construction sites into stormwater were expanded in 2009 and 2012 when the State Water Resources Control Board issued a new Statewide Construction General Permit (Order 2009-0009-DWQ, 2009) and an amendment to the 2009 Permit (Order 2012-0006-DWQ, 2012). Since 2009, SWPPPs must estimate sediment risk to receiving waters in addition to BMPs that must be implemented by a construction project. Additional BMPs are required as sediment risk to receiving waters increases.

All construction operations of one acre or more would be required to prepare and implement SWPPPs. No new substantial water quality impact would result from construction pursuant to the Specific Plan Amendment.

Operation

Requirements for waste discharge from developed land uses into stormwater were expanded in 2009 through the municipal stormwater permit (MS4 Permit, Order No. R8-2009-0030) issued by the Santa Ana RWQCB. The new permit is expected to be adopted in Spring 2015. The MS4 Permit requires low-impact development (LID) measures intended to preserve a site's predevelopment hydrology by minimizing the loss of natural hydrologic processes such as evapotranspiration, and runoff detention. LID measures introduce structural and nonstructural design components that restore these water quality functions into the project's land plan. The design and operations phases of projects developed pursuant to the Specific Plan Amendment would comply with requirements in the MS4 Permit and would comply with additional requirements in the drainage area management plan issued by OC Public Works in 2003. A water quality management plan will be prepared pursuant to the MS4 Permit and subsequent projects will be required to comply with existing regulatory permitting processes. Therefore, no new significant impact would occur.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Change in Project Requiring EIR Revisions.

Groundwater Recharge

The Specific Plan Amendment project area is the same as for the Adopted Specific Plan. The Specific Plan Amendment permits development of 2,212 additional residential units and about 1.7 million fewer square feet of nonresidential land uses than the Adopted Specific Plan. The net increase in residential units will increase the net acreage of residential development, and the net acreage of commercial development will decrease. Commercial development is modeled at 90 percent impervious cover, and residential development is modeled at 80 percent (assuming high density) in accordance with OC Hydrology Manual parameters. Due to the conversion of commercial development to residential development, there will be a net overall decrease in impervious conditions in the Planning Areas subject to land use changes. The net decrease in impervious surfaces would reduce impacts to groundwater recharge. Projects developed pursuant to the Specific Plan Amendment would be required to implement LID measures (described above in Section 5.9.2.a), thus

reducing impacts to groundwater recharge. Specific Plan Amendment buildout would not result in a substantial new impact on groundwater recharge. This topic will not be analyzed in the SEIR.

Groundwater Supplies

The Irvine Ranch Water District (IRWD) supplies water to the Specific Plan Amendment site. The project area overlies the Irvine Subbasin of the Orange County Groundwater Basin. Approximately 48 percent of IRWD's water supplies are groundwater from the Orange County Groundwater Basin. Specific Plan Amendment buildout may increase water demands onsite (see Section 5.17.3b). Further evaluation in the SEIR is required to determine whether there would be new significant impacts to groundwater supplies.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Major storm drainage channels and storm drains in and surrounding the site include Peters Canyon Channel extending through the eastern part of the project area; Barranca Channel along the southern site boundary; the Santa Ana-Santa Fe Channel just north of the north site boundary; and the Barranca Storm Drain in Red Hill Avenue along the west site boundary. Storm drains in the part of the project area east of Peters Canyon Channel drain to Peters Canyon Channel. The main storm drain systems onsite are in the western part of the site and drain to the Barranca Channel.

Buildout of the Specific Plan Amendment would include development of a new drainage system for the site and would require improvements to Peters Canyon Channel, Barranca Channel along the south site boundary, and to the Santa Ana-Santa Fe Channel along the north site boundary.

Projects developed pursuant to the Specific Plan Amendment would comply with requirements of the municipal stormwater permit (MS4 Permit, Order No. R8-2009-0030) issued by the Santa Ana RWQCB, and the drainage area management plan issued by OC Public Works. Compliance with requirements of the aforementioned permit and plan, including LID requirements described above in Section 5.9.2.b, would limit rates and volumes of runoff from the site.

Construction projects pursuant to the Specific Plan Amendment would prepare and implement SWPPPs specifying BMPs to be used in those projects, including erosion control and sediment control BMPs. Implementation of erosion control and sediment control BMPs would reduce erosion impacts from construction. No new significant impact would occur.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Specific Plan Amendment implementation would involve construction of a network of new storm drains and would require improvements to three existing drainage channels. New LID requirements for infiltration,

evapotranspiration, and/or runoff detention have been introduced since certification of the FEIS/EIR. Thus, runoff rates and/or volumes from the site after buildout of the Specific Plan Amendment are expected to be less than would have resulted from buildout of the Adopted Specific Plan. No new significant impact would occur.

As part of the 2004 Master Runoff Management Plan for Tustin Legacy, described above, peak flow discharges and storm drain sizes were determined for each Planning Area based on their full buildout condition (commercial, residential, etc.). Prior to approval of individual projects within Tustin Legacy, the project must demonstrate that the proposed project peak flows are equal to or less than the ultimate condition peak flows in the master plan. For projects that will only occupy a portion of a Planning Area, the runoff management plan includes subareas with detailed hydrology calculations and peak flow limits to ensure the full buildout of the Planning Area will remain within the total allowable discharge. This analysis is reviewed and approved by the City of Tustin.

As part of the Tustin Legacy Specific Plan, several of the Planning Areas are subject to land use changes. These changes include an overall increase in 2,212 residential units and an overall decrease in 1,755,306 square feet of commercial spread out over approximately 8 of the Planning Areas. The remaining Planning Areas will remain unchanged. The net increase in residential units will increase the net acreage of residential development, and the net acreage of commercial development will decrease. Commercial development is modeled at 90 percent impervious cover, and residential development is modeled at 80 percent (assuming high density) in accordance with OC Hydrology Manual parameters. Due to the conversion of commercial development to residential development, there will be a net overall decrease in impervious conditions in the Planning Areas subject to land use changes. The net decrease in impervious surfaces will result in a net decrease in peak flow runoff conditions. In addition, all projects built within Tustin Legacy will still be required to demonstrate that the project peak flow runoff is equal to or less than the assumed peak flow conditions associated with the 2004 Runoff Management Plan for Tustin Legacy. Therefore, there are no anticipated impacts related to hydrology based on the decrease in impervious conditions, the decrease in peak flows, and the requirement to confirm all project flows are within the established peak flow rates for the ultimate development condition.

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Buildout of the Specific Plan Amendment would reduce impacts to storm drainage capacity compared to implementation of the Adopted Specific Plan, as substantiated above in Section 5.9.2.c. The Specific Plan Amendment would not provide new sources of polluted runoff from what was previously considered in the FEIS/EIR. No new substantial impact would occur.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Because regulatory requirements for water quality protection have been strengthened since adoption of the Adopted Specific Plan in 2003, water quality impacts of buildout of the Specific Plan Amendment would be

less than impacts of the Adopted Specific Plan. However, additional measures may be required resulting from the Amended Specific Plan. Because a water quality management plan will be prepared and subsequent projects would be required to following existing regulatory processes, no new significant impact would occur.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Peters Canyon Channel is mapped as a 100-year flood zone (Zone A) by FEMA. Much of the eastern half of the portion of the site in the City of Tustin is mapped as a 500-year flood zone (Shaded Zone X) by FEMA (FEMA 2009). Specific Plan Amendment buildout would not place housing or structures in a 100-year flood zone, and no new substantial impact would occur.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment buildout would not place housing or structures in a 100-year flood zone, and no new substantial impact would occur.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The FEIS/EIR identified Peters Canyon and Rattlesnake dams as being located several miles upstream from the project area. The FEIS/EIR determined that failure of Peters Canyon and/or Rattlesnake dams could pose flood hazards to the project area, but would not result in the risk of loss, injury, or death, since the reservoirs have been designed and constructed pursuant to applicable earthquake standards and the City has implemented an emergency response plan in case of an earthquake. The site is not shown in dam inundation areas for either of those dams on maps from the California Emergency Management Agency dated 2007 (Cal/EMA 2007a; Cal/EMA 2007b). New information shows that flood hazards from dam inundation would be a reduced impact compared to that identified in the previous analysis in the FEIS/EIR. No new substantial impact would occur.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. There are no inland water bodies onsite or near enough to the project area to pose a substantial flood hazard onsite due to a seiche.

A tsunami is a sea wave caused by a sudden displacement of the ocean floor, most often due to earthquakes. The project area is approximately 7.6 miles inland from the Pacific Ocean, and elevations onsite range from about 51 feet at the southwest corner of the site to 80 feet at the northwest corner. Therefore, buildout of the Specific Plan Amendment would not place people or structures at risk of flooding due to tsunami.

A mudflow is a landslide composed of saturated rock debris and soil with a consistency of wet cement. There is no risk of mudflow onsite due to the nearly flat topography of the site. No new substantial impact would occur.

5.10 LAND USE AND PLANNING

5.10.1 Prior Environmental Findings

The FEIS/EIR determined that the project required amendments to the General Plan and Zoning Ordinance to provide consistency with the general plan and zoning designations in the cities of Tustin and Irvine. It found that the intensification and change of land uses pursuant to the MCAS Tustin Specific Plan could create land use incompatibilities with surrounding land uses and internal incompatibilities within the project area. Implementing Actions were incorporated to mitigate this impact by addressing compatibility through processing of land use plans and amendments consistent with the applicable general plans and zoning ordinances.

In 2001, the City of Tustin adopted a General Plan land use designation "MCAS Tustin Specific Plan," and the MCAS Tustin Specific Plan was adopted on February 3, 2003 (Ordinance 1257). As described previously, the MCAS Tustin Specific Plan established the zoning designations, development standards, and entitlement framework for future development in the Specific Plan area.

5.10.2 Current Conditions

Refer to Section 2.2.1, Existing Land Use above for a description of existing development.

5.10.3 Impacts Associated with the Modified Project

Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Physically divide an established community?					X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?					X

Comments:

a) Physically divide an established community?

No Impact. The Specific Plan Amendment would not divide an established community. The Specific Plan Amendment would change the mix of land uses in the proposed land use plan but would not substantial alter the land uses proposed for development or the location with result to communities within the Specific Plan area. Further, it would not alter the development impact area or overall development intensity. The Specific Plan Amendment would be designed so as not to divide established neighborhoods within the project area. The Specific Plan area is surrounded by existing development and would not physically divide an established community. No new impact would occur.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Change in Project Requiring EIR Revisions. The current land use plan governing the project area is the MCAS Tustin Specific Plan as most recently amended by the City of Tustin in 2013. The Specific Plan Amendment would amend the Adopted Specific Plan, as described in Section 3.2, *Project Characteristics*, to change the mix of land uses and internal circulation. An SEIR is being prepared that will analyze whether the Tustin Legacy Specific Plan Amendment is consistent with the City's General Plan and zoning ordinance or result in any new environmental impacts related that would conflict with City policies or regulations. Further evaluation will be provided in the SEIR.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project area is within the plan area of the Orange County Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP); however, the site is not within a reserve established under the NCCP/HCP. Project implementation would not conflict with the NCCP/HCP, and no new impact would occur.

5.11 MINERAL RESOURCES

5.11.1 Prior Environmental Findings

No mineral resources valuable to the region or the state, or identified in the general plans of the cities of Tustin or Irvine, were identified in the FEIS/EIR. No impacts to mineral resources are identified in previous environmental documents.

5.11.2 Current Conditions

There are no changes to current conditions with respect to mineral resources onsite since it was evaluated in the FEIS/EIR.

5.11.3 Impacts Associated with the Modified Project

Would the modified project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?					X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?					X

Comments:

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No Impact. The project area is mapped Mineral Resource Zone 1 (MRZ-1) on the Mineral Land Classification of Orange County, California, indicating that no significant mineral resources are known to be present or there is little likelihood they may be present (CGS 1994). As determined in the FEIS/EIR, no new impact would occur.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. No mining sites in the City of Tustin are identified in the City's General Plan (Tustin 2008). As determined in the FEIS/EIR, no impact would occur.

5.12 NOISE

5.12.1 Prior Environmental Findings

The FEIS/EIR determined that noise impacts would be significant if noise levels for sensitive receptors exceeded noise criteria established in the noise elements of the general plans for the cities of Tustin, Irvine, and Santa Ana. Sensitive receptors are residences, schools, libraries, hospitals, and recreational areas. The FEIS/EIR identified that an increase of 3 dB over existing noise levels experienced by a sensitive receptor would be a significant impact.

5. Environmental Analysis

The FEIS/EIR determined that the increase in traffic levels would not result in a significant impact to roadways surrounding the Specific Plan area. However, significant noise impacts were found for residents near the extension of Tustin Ranch Road to Von Karman Avenue and to residential and park uses adjacent to Warner Avenue between Harvard and Culver Drive.

The FEIS/EIR found that future sensitive receptors developed in accordance with the Specific Plan would incorporate applicable regulations and impacts would be less than significant.

The FEIS/EIR determined that there would be a significant impact to existing onsite housing planned for reuse. Mitigation measures were incorporated to reduce noise levels below 65 dB to less than significant levels.

The 2004 Supplemental EIR analyzed the extension of Tustin Ranch Road between Walnut Avenue and the Future Alignment of the Valencia North Loop. It determined that short-term construction noise impacts would be less than significant. It identified a significant impact to sensitive receptors along Tustin Ranch Road. Mitigation Measure MM N-1, requiring installation of a sound wall, reduced this impact to less than significant. This soundwall has been constructed.

The 2006 Addendum recognized that minor internal changes to the roadway network would change noise levels for land uses near the roadways. However, it found that there were no new significant short-term construction-related or long-term traffic noise impacts and that mitigation measures from the FEIS/EIR would apply.

5.12.2 Current Conditions

The noise environment described in the FEIS/EIR has not changed. Major noise sources on or near the Specific Plan area include vehicular traffic along surrounding major roadways, the railroad along Edinger Avenue, and aircraft noise from John Wayne Airport located two miles to the southwest. The Specific Plan area is not within a 60 dB CNEL noise contour from John Wayne Airport.

A noise study will be prepared for the project and baseline noise levels will be updated in the SEIR.

5.12.3 Impacts Associated with the Modified Project

Would the modified project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?					X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?					X

Comments:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Change in Project Requiring EIR Revisions. Implementation of the Specific Plan Amendment would result in an increase in residential units and a decrease in nonresidential square footage within the Specific Plan area. Although the overall trip generation would be the same, the project would result in a change in the distribution of traffic, affecting roadway noise in and surrounding the Specific Plan area. In addition, the proposed land use plan includes new roadways throughout the specific plan area. Increases in noise levels may result in new significant impacts on adjacent residential or other sensitive uses. Mitigation measures such as architectural upgrades or sound walls may be required. A noise study will be prepared and this issue will be further evaluated in the SEIR.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Change in Project Requiring EIR Revisions. The proposed project has the same development impact area that was analyzed in the FEIS/EIR, and therefore railroad and construction-related vibration would generally be the same. However, implementation of the Specific Plan Amendment would introduce additional residents, which may expose sensitive receptors to increased exposure to groundborne noise or vibration. A noise study will be prepared and this issue will be further evaluated in the SEIR.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Change in Project Requiring EIR Revisions. Implementation of the Specific Plan Amendment would result in an increase in residential units and a decrease in nonresidential square footage within the Specific Plan area. Although the overall trip generation would be the same, the project would result in a change in the distribution of traffic, affecting roadway noise in and surrounding the Specific Plan area. Increases in noise levels may result in new significant impacts on adjacent residential or other sensitive uses. Mitigation measures such as architectural upgrades or sound walls may be required. A noise study will be prepared and this issue will be further evaluated in the SEIR.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Change in Project Requiring EIR Revisions. The proposed project has the same development impact area that was analyzed in the FEIS/EIR, and therefore construction noise resulting from development and redevelopment in accordance with the Specific Plan Amendment would generally be the same. However, implementation of the Specific Plan Amendment would introduce additional residents, which may increase exposure of sensitive receptors to construction noise. A noise study will be prepared and this issue will be further evaluated in the SEIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no aircraft operations at the former MCAS Tustin, and the Specific Plan area is not within the 60 CNEL noise contour for airport operations at John Wayne Airport. (Mestre Greve 2013) Therefore, the project would not expose people residing or working in the project area to excessive noise levels from airport operations.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no aircraft operations at the former MCAS Tustin, and the Specific Plan area is not within the 60 CNEL noise contour for airport operations at John Wayne Airport. (Mestre Greve 2013)

Therefore, the project would not expose people residing or working in the project area to excessive noise levels from airport operations.

5.13 POPULATION AND HOUSING

5.13.1 Prior Environmental Findings

The FEIS/EIR found that development of the Adopted Specific Plan would have resulted in a total population of 12,514, (10,900 in Tustin), resulting in a net population increase of approximately 9,350 persons. The FEIS/EIR analyzed the demolition of the barracks units and conversion to civilian use. Buildout of the Adopted Specific Plan allowed 4,601 residential units, including the 1,537 converted or replaced units. In addition, the FEIS/EIR found that buildout would have resulted in about 24,500 net new jobs, or a net increase of approximately 24,500 jobs. In addition, the project was expected to generate 15,081 indirect jobs. The FEIS/EIR concluded that the increase in population, housing, and employment due to the implementation of the Adopted Specific Plan was a beneficial impact because it would fulfill an identified shortfall in housing and meet the goals of the project to generate jobs.

The FEIS/EIR determined that there would be no adverse impact related to the jobs/housing balance. It was determined that the majority of new jobs would be filled by existing residents within Orange County and it would provide enough new housing for employees residing outside of the County. No significant impact was identified.

The 2006 Addendum updated the demographic data and growth projections for the City of Tustin and County of Orange using the Orange County Projections 2004 (OCP 2004). OCP 2004 includes buildout projections assumed for the Adopted Specific Plan. The changes in projections showed an increase in population and employment in Tustin with a slightly lower housing stock, indicating a larger household size.

The 2006 Addendum determined that there would be a reduction of 879 employees and an increase of 21 residential units and 24 residents. The 2006 Addendum determined that these small changes in employment, housing, and population would not result in any new significant impacts. Further, the project would have a similar impact on the jobs/housing balance countywide.

5.13.2 Current Conditions

Orange County growth projections have been updated since the FEIS/EIR and will be updated in the forthcoming SEIR.

5.13.3 Impacts Associated with the Modified Project

Would the modified project:

5. Environmental Analysis

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	X				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?					X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					X

Comments:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Change in Project Requiring EIR Revisions.

Population Growth

The Specific Plan Amendment would permit development of a net increase of 2,212 residential units compared to the Adopted Specific Plan. The average household size in the City of Tustin in 2014 was estimated at 3.03 persons. The vacancy rate in the City of Tustin in 2014 was estimated at 4.8 percent (CDF 2014). Thus, the average number of persons per housing unit in the City of Tustin in 2014 is estimated as the average household size (3.03 persons) times the occupancy rate (95.2 percent), or 2.88 persons. Therefore, buildout of the Specific Plan Amendment would increase population onsite by an estimated 6,370 persons. The population of the City of Tustin is forecast to increase from 81,300 in 2020 to 82,900 in 2035, a net increase of 1,600 persons (SCAG 2012). The Citywide growth projection is well below the proposed growth assumed for buildout of the Specific Plan Amendment. Further evaluation in the SEIR is required to determine whether this increase in housing and population would induce growth and change the conclusions of the FEIS/EIR.

Employment Impact

The Specific Plan Amendment would result in a reduction in nonresidential development of 1,755,306 square feet to offset the increase in residential units. Low-rise office uses are estimated to generate one employee per 507 square feet, and retail and service uses are estimated to generate one employee per 617 square feet

(Natelson 2001). Using 507 square feet per employee for a conservative estimate, the Specific Plan Amendment is estimated to result in a net reduction of about 3,462 employees. Further evaluation in the SEIR is required to determine the impacts related to reduction in employment, which was determined to be a beneficial impact in the FEIS/EIR.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. Family housing units formerly on the site have been redeveloped with new residential uses; the barracks formerly onsite have been removed. Implementation of the Specific Plan Amendment would not displace existing housing. To the contrary, the Specific Plan Amendment would permit development of 2,212 more residential units than those permitted under the Adopted Specific Plan. No impact would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Specific Plan Amendment buildout would not displace residents. No impact would occur.

5.14 PUBLIC SERVICES

5.14.1 Prior Environmental Findings

5.14.1.1 FIRE PROTECTION

The FEIS/EIR determined that implementation of the Specific Plan would require additional firefighting personnel and equipment at existing fire stations. However, it found that buildout would not require new or expanded fire stations. All development projects would be required to meet Orange County Fire Authority (OCFA) regulations, and impacts were determined to be less than significant.

Subsequent to the certification of the FEIS/EIR, in May 2003, the Navy Disposal Plan transferred to the City of Tustin a 1.25-acre site at Edinger Avenue and the West Connector for construction of the new fire station. The fire station would be funded through development in Tustin Legacy and in the City of Irvine within the former MCAS Tustin.

Subsequently, OCFA reevaluated its need for fire protection facilities with respect to response times and determined it needed to move Station No. 37 to a new location in the Specific Plan area. In March 2005, the City entered into a Memorandum of Understanding with OCFA for a new fire station at Tustin Legacy.

The 2006 Addendum found that the project would place a similar demand for fire protection services as the original project and that the fire station proposed in the Specific Plan area would meet the needs of the project. As determined by the FEIS/EIR, future projects would be required to comply with all OCFA regulations.

5. Environmental Analysis

5.14.1.2 POLICE PROTECTION

The FEIS/EIR determined that implementation of the Specific Plan would increase the demand for police services in the cities of Tustin and Irvine. The FEIS/EIR identified the need for two additional patrol units and three additional investigative units in the Tustin Police Department, and two additional sworn officers in the Irvine Police Department. However, it found that buildout would not require new or expanded police facilities and impacts would be less than significant. The 2006 Addendum found similar impacts with respect to police services and no new impacts were identified.

5.14.1.3 SCHOOLS

As shown in Figure 6, the project site is within the service areas of the Tustin Unified School District (TUSD), Irvine Unified School District (IUSD), and Santa Ana Unified School District (SAUSD). TUSD serves the majority of the Specific Plan area, including Planning Areas 1, 2, 4-5, 6, 7, 8, 15, 16-19, and a portion of 13-14. IUSD serves a portion of Planning Area 15 and development east of Jamboree Road (Planning Areas 20, 21, and 22). SAUSD serves Planning Area 9-12 and a portion of Planning Area 13-14.

Tustin Unified School District

The FEIS/EIR determined that the project would generate 2,432 students: 1,473 within the Tustin Unified School District (TUSD), an increase of 1,143 students.

The Specific Plan provided for two elementary schools and one high school onsite. TUSD determined that those schools would be adequate to house students generated by the project. TUSD would collect school facilities impact fees pursuant to Senate Bill 50 (SB 50).

TUSD entered into a School Facilities Funding and Mitigation Agreement with Moffett Meadows Partners, LLC; William Lyon Homes, Inc.; Ora Astoria, LLC; and MW Housing Partners III, L.P. (Lennar Mitigation Agreement) for their development in the Specific Plan area within the boundaries of the TUSD. The agreement identified modified TUSD student generation rates and procedures to finance school facilities. The new student generation rates and are shown in Table 6, and TUSD confirmed that these rates would also apply to the balance of the Specific Plan area.

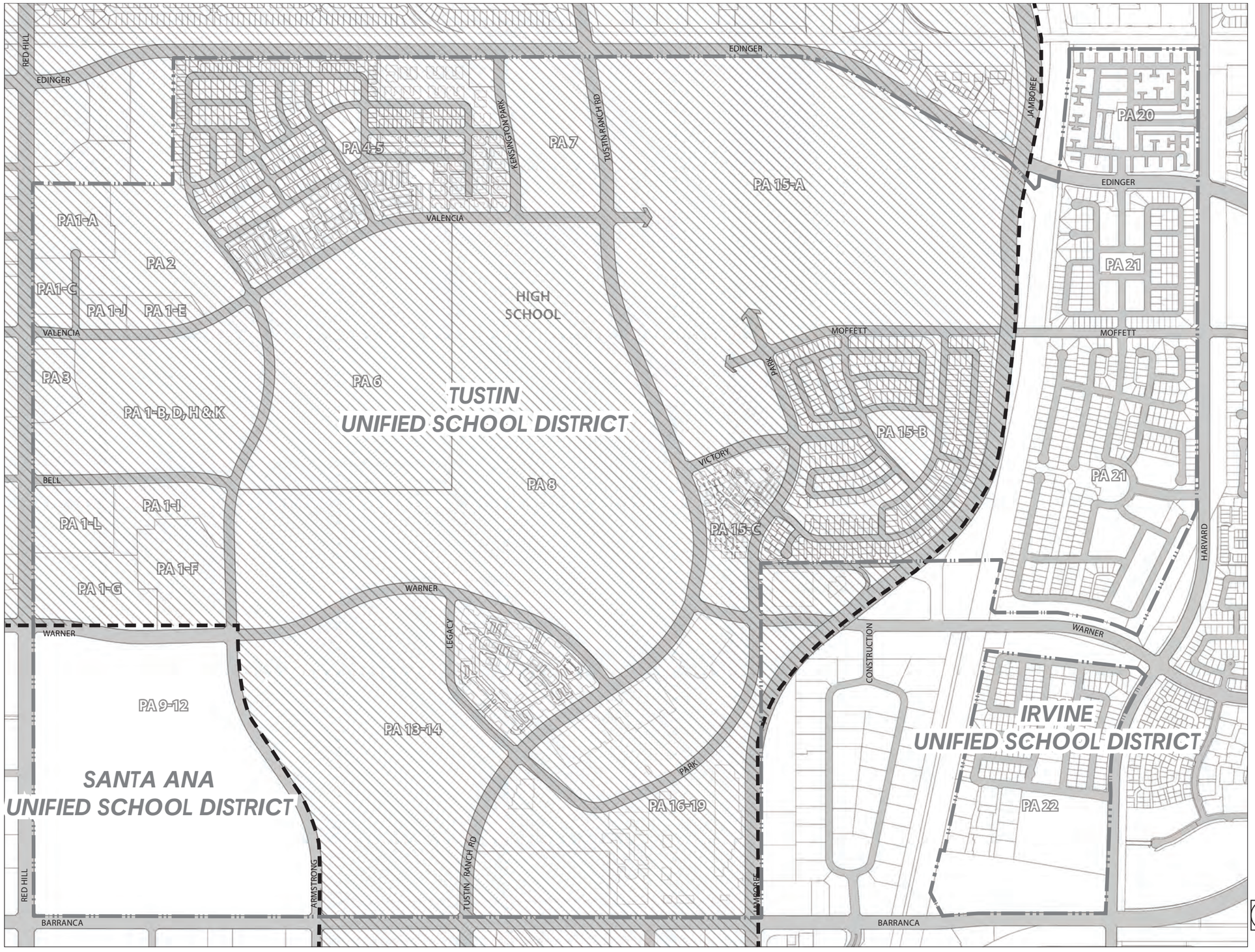
Table 6 TUSD Student Generation Rates

	K–8 Grade	9–12 Grade
Single-Family Detached	0.465	0.135
Single-Family Attached	0.219	0.077
Apartments	0.350	0.113

Source: Tustin 2006.

Figure 6

School District Service Areas



LEGEND

- Project Boundary
- Unified School District Boundary
- Tustin Unified School District

CITY OF TUSTIN

TUSTIN LEGACY SPECIFIC PLAN

INITIAL STUDY

TUS.11-1
9/8/2014

0 1,000
Scale (Feet)

PLACEWORKS

Source: Tustin Unified School District

5. Environmental Analysis

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The 2006 Addendum used the generation rates provided in Table 6 and determined that the project would result in a reduction of 497 students within TUSD. No new impacts were identified. The 2006 Addendum also recognized the future development of three school sites in TUSD identified in the FEIS/EIR and analyzed the impact of expanding the Heritage school by 5-acres to accommodate a combination elementary/middle school.

Irvine Unified School District

The FEIS/EIR determined that the project would generate 2,432 students: 959 within the Irvine Unified School District (IUSD), a net increase of 302 students. It provided for a 20-acre school site within the IUSD boundaries to accommodate the increased student population. The Specific Plan also included a site for a K–8 school in the IUSD; project-generated students in grades 9–12 would attend existing and planned IUSD high schools. The 2006 Addendum determined that the project would result in a reduction of 107 students within IUSD. No new significant impacts were identified.

Santa Ana Unified School District

The FEIS/EIR determined that no new students would be generated directly to the SAUSD resulting from housing development. However, commercial development would indirectly generate new students if new employees were to seek housing nearby within the SAUSD boundaries. These impacts were addressed with a settlement agreement between the City of Tustin and SAUSD.

The 2006 Addendum recognized a reduction of approximately 0.7 million square feet of nonresidential uses, reducing the potential for indirect student generation. It found that impacts would be reduced compared to the original project.

5.14.1.4 LIBRARIES

The FEIS/EIR identified three public libraries within three miles of the Specific Plan area. It found that implementation of the Specific Plan would not require construction of a new library facility, and impacts were less than significant. Subsequently, Orange County Public Library (OCPL) entered into an agreement with the City of Tustin to expand the Tustin Branch Library in the Tustin Civic Center. The project was approved in September 2005 and evaluated in a mitigated negative declaration (SCH 2002041001) adopted May 2002. In 2009, the new 32,000-square-foot library opened, replacing the 15,000-square-foot facility built in 1974. The new library has a book capacity of 209,000 volumes.

5.14.2 Current Conditions

There are no changes to current conditions with respect to public services since the previous environmental findings with the exception that OCFA Fire Station #37 at Edinger Avenue and Kensington Park Drive has been completed. Public service providers to the Specific Plan area include:

- Fire protection: Orange County Fire Authority
- Police protection: Tustin Police Department and Irvine Valley College Police Department for South Orange County Community College District property

- Schools: Tustin Unified School District
- Library services: Orange County Public Library

5.14.3 Impacts Associated with the Modified Project

Would the modified project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Fire protection?				X	
b) Police protection?				X	
c) Schools?	X				
d) Parks?				X	
e) Other public facilities?				X	

Comments:

a) Fire protection?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The two nearest fire stations to the site are OCFA Station 6 at 3180 Barranca Parkway in Irvine and Station 37 at 15001 Kensington Park Drive in Tustin; both stations were in operation at the time of the FEIS/EIR and provide adequate service to the project area. The Specific Plan Amendment would result in an increase of 2,212 residential units and a decrease of approximately 1.7 million square feet of nonresidential uses. Although the project would result in an increase in demand for fire protection due to the resulting increase of 6,371 residents, there would be a decrease of 1.7 million square feet of nonresidential uses offsetting the increase in demand. Based on the Memorandum of Understanding between the City of Tustin and OCFA, a new fire station (Station 37) was constructed within the Specific Plan area to meet the demand of the proposed and surrounding land uses. No other new or expanded off-site fire protection facilities would be required. The Specific Plan Amendment would be required to meet OCFA regulations and standard conditions. No new significant impacts are anticipated.

b) Police protection?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The need for police protection services is assessed on the basis of resident population estimates and the square footage of nonresidential uses. As stated previously, the Specific Plan Amendment would result in an increase of 2,212 residential units and a decrease of approximately 1.7 million square feet of nonresidential uses. Although the increase of 6,371 residents would result in an increase in demand for police protection, this would be offset by the reduction in approximately 1.7 million square feet of nonresidential uses. Service level impacts are anticipated to be similar to that analyzed in the FEIS/EIR. No new policies facilities would be needed and no significant physical impacts would result. Additionally, developers are required to coordinate with the Tustin Police Department prior to project approval to ensure adequate security precautions and design features are in place. No new significant impacts are anticipated.

c) Schools?

Change in Project Requiring EIR Revisions.

Student Generation

Implementation of the Specific Plan Amendment would increase residential development onsite by 2,212 units compared to buildout of the Adopted Specific Plan. These units would be within the TUSD boundaries (see Figure 6).

The exact breakdown of residential units by type is unknown at this time. To provide a conservative estimate, TUSD student generation rates (Table 6) for single-family detached homes were used to determine the approximate student generation of the project: 0.465 student per unit in grades K–8 and 0.135 student per unit in grades 9–12. Buildout of the Specific Plan Amendment would result in a maximum of 1,328 additional students, 1,029 in grades K–8 and 299 in grades 9–12.

The portion of the project area within the TUSD is currently served by three schools in the City of Tustin (outside of the project area): Veeh Elementary School at 1701 San Juan Street, about 1.3 miles northeast of the site; Currie Middle School at 1402 Sycamore Avenue; and Tustin High School at 1171 El Camino Real. The existing capacities and enrollments of the three existing schools are shown in Table 7 below. The capacities shown are total capacities, including permanent and relocatable classrooms. Table 7 also shows the potential capacity of schools proposed on the project site.

5. Environmental Analysis

Table 7 Capacities and Enrollments, TUSD Schools Serving the Project Area

	Capacity	Enrollment	Remaining Capacity
Veeh Elementary School	602	433	169
Currie Middle School	889	765	124
Tustin High School	2583	2305	278
Total	4,074	3,503	571
Future Schools			
Heritage K-5 School	600	-	600
6-12 Legacy Academy	1,200–1,400	-	1,200–1,400
Total	2,000	-	2,000

Source: Miranda 2014.

The net increase in student generation due to Specific Plan Amendment would exceed the remaining capacity of 571 seats at the three existing TUSD schools. However, additional students could be accommodated by the conversion of the existing Heritage K-5 School (accommodating 600 students) and 40 acre high school (accommodating 1200-1400 students) that is identified on the adopted Specific Plan on Planning Area 8. As stated above, both of these school sites were identified and evaluated in the FEIS/EIR. Construction and operation of these sites would undergo separate CEQA review with TUSD as the lead agency. Further evaluation in the SEIR is required to determine the available capacity at buildout.

d) Parks?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Refer to Section 5.14, *Recreation*.

e) Other public facilities?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The two nearest Orange County Public Library (OCPL) facilities to the project area are the Tustin Library at 345 East Main Street in Tustin about 1.6 miles north of the site, and the Heritage Park Library at 14361 Yale Avenue in Irvine about 1.3 miles to the east.

Demands for library service are generated by the population in a library's service area. The Specific Plan Amendment would add 4,609 residents (2,212 dwelling units) to the site compared to the Adopted Specific Plan, resulting in a total of 17,859 residents. The FEIS/EIR estimated that the Adopted Specific Plan would generate a demand for approximately 2,500 square feet of library space, or 0.2 square foot per person. The Specific Plan Amendment would generate demand for a net increase of 922 square feet of library space, or 3,572 square feet total at buildout. The Tustin Library increased its facilities by 14,000 square feet in 2009. The additional demand of 922 square feet can be accommodated by the existing library facilities and would not require the construction of a new or expanded facility. No new significant impact would occur.

5.15 RECREATION

5.15.1 Prior Environmental Findings

The FEIS/EIR evaluated recreational impacts of the Specific Plan that included 126 acres of public parkland, including 118 acres in the City of Tustin (84.5-acre regional park, 24.1-acre community park, and two 5-acre neighborhood parks) and an 8-acre neighborhood park in the City of Irvine. The FEIS/EIR found that the 118 acres of public parkland in Tustin was well over the requirement established by the City's municipal code (three acres of park per 1,000 residents). It determined that the provision of approximately 126 acres of parkland would result in a beneficial impact related to the provision of parks. Construction and operation of the proposed parks were also evaluated throughout the FEIS/EIR and mitigation measures were identified.

The FEIS/EIR analyzed proposed Class I and II bikeways, riding and hiking trails proposed in the Adopted Specific Plan. Physical impacts of trail construction were identified throughout the FEIS/EIR along with the development areas. These recreational facilities were determined to be a beneficial impact to the project.

The 2006 Addendum identified an increase in parkland to 202 acres of public parks, an increase of 76 acres of public parkland compared to the original Specific Plan evaluated in the FEIS/EIR. The 2006 Addendum evaluated the elimination of a 159-acre private golf course that was originally proposed and determined that it would not have been completely accessible to the general public and may have resulted in increased environmental impacts. The Specific Plan would result in a beneficial impact related to recreation with a new community park and linear park system providing a focal point for the community. The 2006 Addendum identified a number of individual development projects that have been approved and provided additional private recreation facilities not originally envisioned in the Specific Plan.

The 2006 Addendum determined that the Specific Plan would exceed the parkland dedication requirement and would not generate an increase in the use of existing recreational facilities. Additionally, it determined that the changes proposed in the bikeway and trail system would be a beneficial impact.

5.15.2 Current Conditions

As identified in Section 2.2.1, a number of individual development projects have been approved, and additional private recreation facilities not originally envisioned in the Specific Plan have also been developed as part of those projects. The 24.1-acre community park identified in the FEIS/EIR is now 33 acres.

5.15.3 Impacts Associated with the Modified Project

Would the modified project:

5. Environmental Analysis

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X	

Comments:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. As summarized on Table 4, the project contains 170 acres of parks in addition to an 85 acre regional park. The proposed increase in residents would not result in the substantial physical deterioration of existing facilities. The City municipal code requires the dedication of 3 acres of parkland per 1,000 residents. The Specific Plan Amendment would add approximately 6,371 residents, requiring an additional 19.1 acres of parkland within the Specific Plan area at buildout. The 2006 Addendum determined that the project would result in 12,524 residents, which would require 37.6 acres of parkland. Therefore, the City municipal code would require approximately 56.7 acres of parkland at buildout. Implementation of the Specific Plan Amendment includes approximately 255 acres of public parks (including the 84.5-acre regional park in Planning Area 6). This exceeds the amount of parkland required by the municipal code and considered in the FEIS/EIR. Since the Specific Plan Amendment would provide ample parkland, buildout would not increase the use of existing parks or cause the physical deterioration of existing recreational facilities. No new substantial impact would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment would increase the demand on park facilities due to the increase in 2,212 residential units and approximately 6,371 residents. The City of Tustin General Plan requires 170 acres of public open space to be designated within the Tustin Legacy Specific Plan area. Additionally, Tustin Municipal Code Section 9331(d) requires that subdividers of residential developments dedicate land to the City for park

development, make payments in lieu of land dedication, or some combination thereof. As stated, the municipal code requires dedication of 3 acres per 1,000 residents; the amount of land to be dedicated per residential unit ranges from 0.0067 acre to 0.0102 acre depending on the type and density of the units.

The net increase of 6,371 residents would generate a requirement for 19.1 acres of parkland and 56.7 acres of parkland at buildout. As shown previously in Table 3, the Specific Plan Amendment proposes a total of 170 acres of parks in addition to the approximate 85 acre regional park. The Amended Park Plan provides a linear park that extends through the site from the west corner to the transit station to the east, which creates connectivity for the community and proposed school locations. Future residential development would also construct private parks with each community. Although there would be an increase in population, resulting in an increased demand on park facilities, there are ample parks proposed in the Specific Plan Amendment.

Construction and operation of the proposed parks and recreation facilities would occur within the development footprint analyzed in the FEIS/EIR. Park construction and its environmental effects were analyzed throughout the FEIS/EIR and mitigation measures were incorporated. Physical impacts of park facilities have been addressed in the FEIS/EIR and the Amended Park Plan would not result in a new substantial impact.

5.16 TRANSPORTATION/TRAFFIC

5.16.1 Prior Environmental Findings

The FEIS/EIR determined that Adopted Specific Plan buildout was estimated to generate 216,445 average daily vehicle trips (ADT), over 97 percent of which would originate in the portion of the site in the City of Tustin. The Adopted Specific Plan buildout was forecast to result in potentially significant impacts to 7 arterial intersections in the interim condition and 18 in the Year 2020 (see Table 8). Mitigation measures were identified for all significant impacts. Proponents of development projects in the area would be required to make fair-share contributions to the cities of Tustin and Irvine and the cities would be responsible for ensuring that the improvements were constructed. The City of Tustin would pass through fees from fair-share funding for impacted intersections in the City of Santa Ana and impacted intersections under the jurisdiction of Caltrans to the appropriate jurisdictions and would coordinate with those jurisdictions regarding completion of those improvements. Even with incorporation of mitigation measures, impacts were determined to be significant and unavoidable in 2020 With Project conditions for the intersections of Tustin Ranch Road at Walnut Avenue and Jamboree Road at Barranca Parkway. Impacts to all other intersections in the 2020 With Project conditions and all intersections in 2005 With Project conditions were less than significant after mitigation. Additional mitigation measures required phased completion of roadway improvements onsite based on cumulative project-generated ADT.

5. Environmental Analysis

Table 8 Significant Impacts to Intersection Operation, MCAS Tustin Specific Plan (FEIS/EIR)

Scenario	City	Intersection
2005 With Project	Tustin/Irvine	Von Karman/Barranca
		Jamboree/Barranca
	Santa Ana	Main/Warner
		Main/Dyer
		Grand/Edinger
		Ritchey/Edinger
		SR-55 SB Ramps/Edinger
2020 With Project	Tustin	Newport/Edinger
		Red Hill/Edinger
		Tustin Ranch/Walnut
	Tustin/Santa Ana	Red Hill/Warner
	Tustin/Irvine	Jamboree/Barranca
	Santa Ana	Hutton Center/MacArthur
		Grand/Edinger
		Grand/Warner
		Grand/Dyer
		Lyon/Edinger
		Standard/Edinger
	Irvine	Red Hill/Main
		Von Karman/Michelson
		Jamboree/Alton
		Harvard/Alton
		Culver/Warner

Source: FEIS/EIR 2001.

The FEIS/EIR determined that the increase in development would create additional demand for transit service. However, the buildout would improve the circulation system which would improve service for bus routing. No significant impacts were identified on the rail system. No significant pedestrian or bicycle impacts were identified in the FEIS/EIR; however the planned bicycle trails would provide a benefit to the pedestrian and bicycle facilities.

The 2004 Supplemental EIR identified a potentially significant additional impact at the intersection of Red Hill Avenue at Warner Avenue in the cities of Tustin and Santa Ana. Mitigation was required and implemented, and the impact was determined to be less than significant after mitigation.

The 2006 Addendum did not identify any new significant traffic impacts, and implementation of the Specific Plan analyzed in the 2006 Addendum would avoid the significant and unavoidable impact at the intersection of Tustin Ranch Road and Walnut Avenue in 2020 With Project conditions. The addendum determined that the total number of trips generated by the project had not changed and did not exceed the trip caps established by and agreed upon between the cities of Tustin, Santa Ana, and Irvine.

5.16.2 Current Conditions

The City of Tustin conducted traffic counts in the Tustin Legacy Specific Plan study area to provide an update of conditions for 2014. The existing circulation system includes the completion of the Tustin Ranch Road connection between Walnut Avenue and Warner Avenue, which provides additional north–south capacity in the area, thereby alleviating traffic conditions along Red Hill Avenue and Jamboree Road. The ADT volumes on the arterial roadway system in the study area are illustrated in Figure 7, *Existing ADT*. The peak hour intersection capacity utilization (ICU) results for the intersections in the study area illustrated in Figure 8, *Existing Intersection Location Map*, and summarized in Table 9. Detailed calculation worksheets are provided in Appendix A. Table 9 shows that all intersections currently operate at acceptable levels of service, with a level of service (LOS) "E" or better (ICU is 1.00 or less) for locations in the Irvine Business Complex and LOS "D" or better (ICU is .90 or less) for the remaining intersections in the study area.

Table 9 Tustin Legacy: Existing LOS Summary

	AM Peak		PM Peak	
Intersection Location (N/S Road at E/W Road)	ICU	LOS	ICU	LOS
1. Tustin Ranch Rd at Walnut	0.52	A	0.71	C
2. Jamboree SB at Walnut	0.43	A	0.45	A
3. Jamboree NB at Walnut	0.34	A	0.52	A
4. Harvard at Walnut	0.31	A	0.38	A
5. Culver at Walnut	0.64	B	0.73	C
6. Newport at SR-55 NB Ramps	0.47	A	0.62	B
7. Auto Mall Dr/SR-55 SB Ramps at Edinger	0.53	A	0.55	A
8. Newport at Edinger	0.63	B	0.42	A
9. Del Amo at Edinger	0.31	A	0.35	A
10. Red Hill at Edinger	0.55	A	0.74	C
11. Kensington Park Dr at Edinger	0.28	A	0.33	A
12. Jamboree at Edinger	0.51	A	0.57	A
13. Harvard at Edinger/ICD	0.30	A	0.51	A
14. Culver at Irvine Center Dr	0.57	A	0.65	B
15. Harvard at Moffett/Paseo Westpark	0.19	A	0.33	A
16. Red Hill at Valencia	0.47	A	0.61	B
17. Armstrong at Valencia	0.26	A	0.22	A
18. Kensington Park Dr at Valencia	0.27	A	0.33	A
19. Tustin Ranch Rd at Valencia	0.31	A	0.42	A
20. Red Hill at Warner	0.55	A	0.59	A
21. Tustin Ranch Rd at Warner	0.35	A	0.53	A
22. Park at Warner	0.35	A	0.51	A
23. Jamboree NB at Warner	0.24	A	0.54	A
24. Harvard at Warner	0.37	A	0.49	A
25. Culver at Warner	0.56	A	0.62	B
26. Red Hill at Carnegie	0.39	A	0.60	A
27. Tustin Ranch Rd at Park	0.39	A	0.52	A
28. The District at Park	0.15	A	0.32	A

5. Environmental Analysis

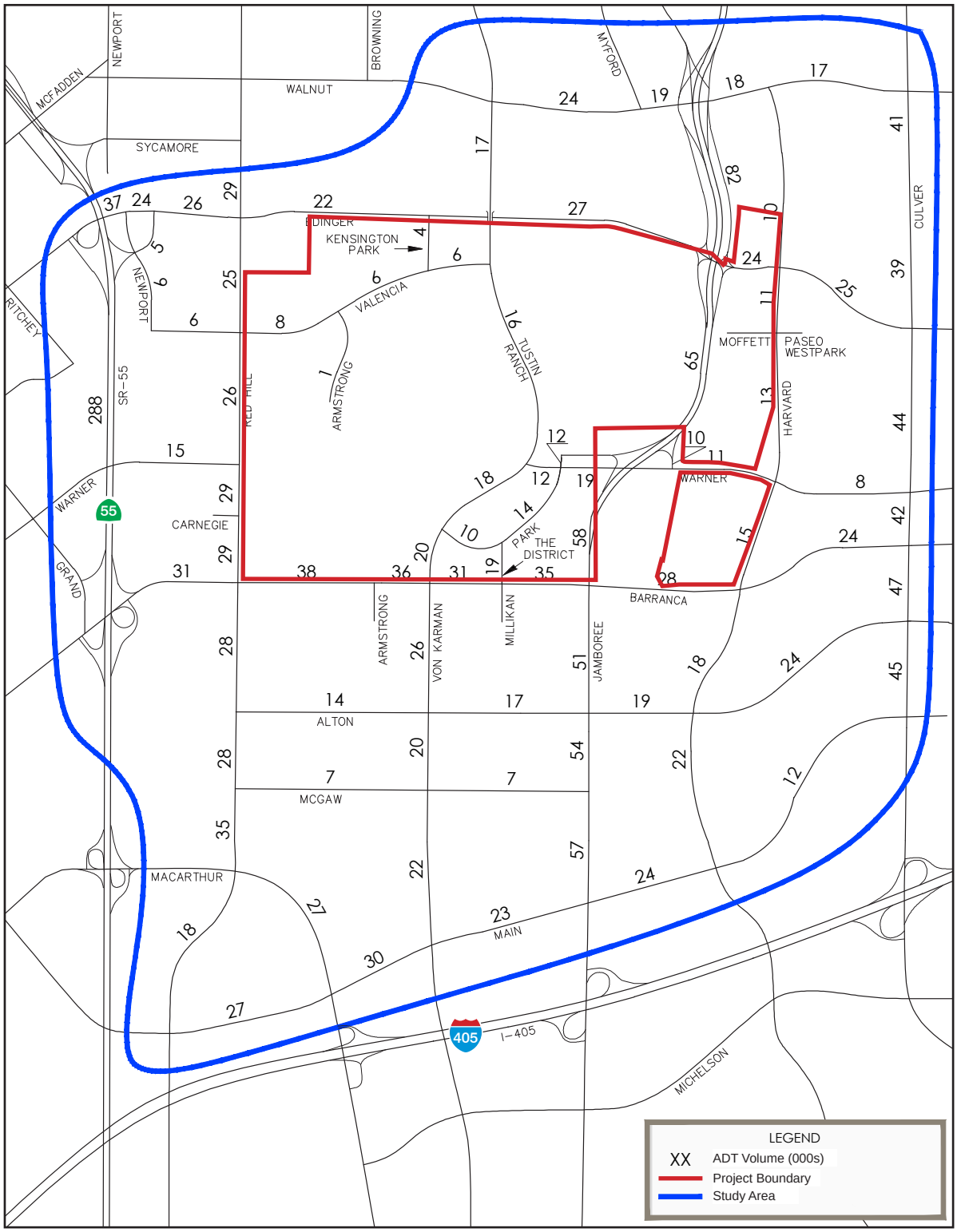
Table 9 Tustin Legacy: Existing LOS Summary

Intersection Location (N/S Road at E/W Road)	AM Peak		PM Peak	
	ICU	LOS	ICU	LOS
29. Hotel Terrace/SR-55 SB Ramps at Dyer	0.52	A	0.69	B
30. Grand at Dyer	0.55	A	0.63	B
31. SR-55 NB Ramps at Dyer	0.58	A	0.39	A
32. Red Hill at Dyer/Barranca*	0.51	A	0.68	B
33. Aston at Barranca*	0.39	A	0.42	A
34. Armstrong at Barranca*	0.35	A	0.53	A
35. Tustin Ranch Rd/Von Karman at Barranca*	0.67	B	0.78	C
36. The District/Millikan at Barranca*	0.36	A	0.55	A
37. Jamboree at Barranca*	0.75	C	0.92	E
38. Harvard at Barranca	0.44	A	0.56	A
39. Culver at Barranca	0.62	B	0.75	C
40. Red Hill at Alton*	0.46	A	0.78	C
41. Von Karman at Alton*	0.80	C	0.86	D
42. Jamboree at Alton*	0.62	B	0.78	C
43. Harvard at Alton	0.58	A	0.67	B
44. Culver at Alton	0.65	B	0.72	C
45. Red Hill at McGaw*	0.43	A	0.59	A
46. Von Karman at McGaw*	0.60	A	0.65	B
47. Jamboree at McGaw*	0.48	A	0.69	B
48. Red Hill at MacArthur*	0.61	B	0.75	C
49. Red Hill at Main*	0.52	A	0.68	B
50. MacArthur at Main*	0.63	B	0.71	C
51. Von Karman at Main*	0.53	A	0.57	A
52. Jamboree at Main*	0.67	B	0.85	D
53. Harvard at Main	0.53	A	0.69	B
54. Culver at Main	0.66	B	0.66	B

Notes: LOS Ranges:
A .00–.60
B .61–.70
C .71–.80
D .81–.90
E .91–1.00
F > 1.00
* LOS E is acceptable at this intersection in the Irvine Business Complex.

Figure 7

Existing ADT



CITY OF TUSTIN

TUSTIN LEGACY SPECIFIC PLAN

INITIAL STUDY

NOT TO SCALE

TUS.11-1
1/5/2014

Source: Stantec

PLACEWORKS

5. Environmental Analysis

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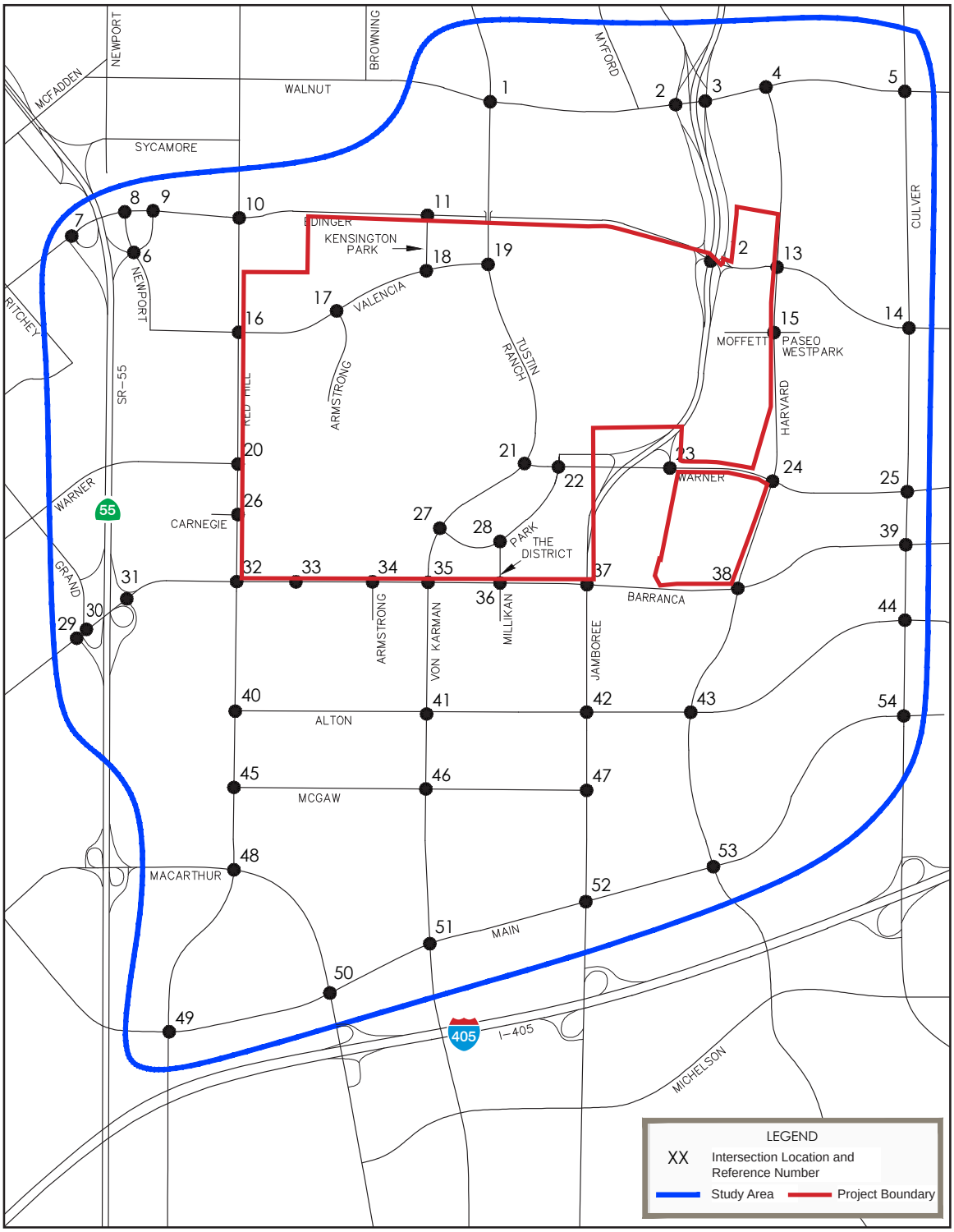
Figure 8

Existing Intersection Location Map



CITY OF TUSTIN

TUSTIN LEGACY SPECIFIC PLAN

INITIAL STUDY

NOT TO SCALE

TUS.11-1
1/5/2015

Source: Stantec

PLACEWORKS

5. Environmental Analysis

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5.16.3 Impacts Associated with the Modified Project

Would the modified project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		X			
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	X				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	
e) Result in inadequate emergency access?				X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X	

Comments:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Change in Circumstances Requiring EIR Revisions. The Specific Plan Amendment would not change the total trip generation, since the increase in residential units is offset by a decrease in nonresidential uses.

5. Environmental Analysis

However, the project would change the land use mix, resulting in a change in AM and PM peak hour trips. Also, the internal circulation plan would be revised in Planning Area 15 to extend Moffett Drive to Tustin Ranch Road and Carnegie Avenue in Planning Areas 13-14 and 9-12, is discontinuous but connects neighborhoods from Legacy Road to Barranca Parkway to Red Hill Avenue. If future traffic demand requires an additional connection, Moffett Drive may be extended through Planning Area 8 to Bell Avenue. Additionally, the City's traffic model has been updated since the impact determinations were made in the FEIS/EIR. Therefore, impacts on the performance of the circulation system may result in a change in traffic impacts.

A traffic impact analysis for the Specific Plan Amendment will address these issues in the SEIR. In order to account for changes in the circulation system and updated traffic data, the traffic analysis will model buildout of both the Adopted Specific Plan and the proposed Specific Plan Amendment. The traffic model forecasts will use the Irvine Transportation Analysis Model (ITAM) developed by the City of Irvine, which incorporates the Tustin Legacy Specific Plan area. ADT and peak hour analyses will be used to verify if the proposed land use and internal circulation changes (i.e., the modified project, referred to in the traffic study as "with-project") affect the offsite roadway system when compared to the Adopted Specific Plan. The methodology proposed is to evaluate long-range peak hour capacity utilization at major offsite intersections near the Specific Plan area.

The internal circulation will also be evaluated. Long-range (buildout) traffic forecasts will be prepared for the internal circulation system using ITAM. The information will include ADT volumes on roadway segments and peak hour turn movement volumes at key intersections. The forecasts will be based on the latest proposed land use data for the project area as well as on roadway sizing, intersection capacity needs, intersection controls, and intersection configurations. This analysis will be provided in the SEIR.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Change in Project Requiring EIR Revisions. The congestion management program (CMP) in effect in Orange County was issued by the Orange County Transportation Authority in November 2013. All freeways, tollways, select arterial roadways and interchange ramp intersections in Orange County are elements of the CMP Highway System—including several roadways and ramp intersections in the traffic study area, such as Jamboree Road, Edinger Avenue, Irvine Center Drive, and State Route 55 (SR-55) Northbound Ramps at Edinger Avenue/Newport Avenue and Jamboree Road Northbound and Southbound Ramps at Edinger Avenue. The CMP requires transportation impact analyses of impacts to CMP roadways for all development projects adjacent to a CMP roadway that would generate 2,400 or more daily trips and for all development projects providing direct access to a CMP roadway that would generate 1,600 or more daily trips. Although the project would not exceed the trip budget analyzed in the FEIS/EIR, a comparison will be made to the previous findings to determine whether there are any new significant impacts. EIR revisions are required due to both changes in existing conditions and changes in the project since certification of the FEIS/EIR.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment would not cause a substantial increase in air traffic levels or change in traffic levels or location, since the project would stay within the trip cap for the site. It would permit 2,212 additional housing units and eliminate about 1.7 million nonresidential square feet compared to the Adopted Specific Plan. The Airport Land Use Commission for Orange County has a review policy for buildings of a certain height (110 to 200 feet within the Specific Plan area) to reduce interference with flight operations. Any structures within the Specific Plan that exceed the height thresholds would be subject to review by the FAA and the Airport Land Use Commission. Consistent with the findings of the FEIS/EIR, impacts are less than significant. Height restrictions over the project area have not changed since certification of the FEIS/EIR. No new significant impact would occur.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Implementation of the Specific Plan Amendment would not add incompatible uses to area roadways and would not create a hazardous design feature. Minor revisions to the internal circulation system would not result in a design feature that would increase hazards. The design of the circulation system would conform to City of Tustin standards and guidelines to ensure the safety of residents and pedestrians and at school locations. Consistent with the findings of the 2006 Addendum, school access would be designed according to City guidelines to create low volumes along the local roadways fronting the elementary and high schools. No new significant impact would occur.

e) Result in inadequate emergency access?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. Implementation of the Specific Plan Amendment would not impede emergency access to surrounding communities and would not result in inadequate emergency access to existing or proposed developments onsite. The proposed circulation plan would provide adequate emergency access to proposed developments onsite. Projects developed pursuant to the Specific Plan Amendment would provide fire access roads conforming with requirements of California Fire Code (California Code of Regulations Title 24 Part 9) Section 503. Such projects would submit site plans and building plans to the OCFA during the plan check process to ensure they meet OCFA regulations regarding emergency access, including turning radii for firefighting vehicles and emergency exit routes from buildings. No new significant impact would occur.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment includes a pedestrian and vehicular circulation system, including roadways, landscaping, parks, street lighting, sidewalks, and pedestrian paths. In addition, proposed parks onsite would

be connected by pedestrian and bicycle trails. Legacy Park, a linear park that traverses the Specific Plan area, connects the west corner of the site to the Tustin Metrolink Station at the intersection of Edinger Avenue and Jamboree Road, next to the eastern project area boundary. Two Metrolink commuter rail routes serve the Tustin station: the Orange County Line operates between Oceanside in San Diego County and Los Angeles, and the Inland Empire-Orange County Line operates between San Bernardino and Oceanside. A total of 45 trains per day stop at the station (29 Orange County Line and 16 Inland Empire-Orange County Line) (Metrolink 2014). A pedestrian bridge across Edinger Avenue would be the primary pedestrian and bicycle connection between the project area and the transit station. The Specific Plan Amendment would not decrease the safety or performance of pedestrian, bicycle, or transit facilities. The project is consistent with the conclusion of the FEIS/EIR, and no new significant impact would occur.

5.17 UTILITIES AND SERVICE SYSTEMS

5.17.1 Prior Environmental Findings

The FEIS/EIR determined that impacts to potable water supply and distribution, reclaimed water supply and distribution, wastewater conveyance and treatment, storm drainage, electricity supply and distribution, natural gas supply and distribution, and solid waste disposal were less than significant with no mitigation required. Utilities would be replaced and sized to accommodate the proposed land uses.

The FEIS/EIR determined that at buildout the Specific Plan would demand 2.8 million gallons per day (mgd) of water and 1.8 mgd of reclaimed water. It would generate 2.5 mgd of wastewater, with a peak flow of 7.7 gallons per day (gpd). All utility infrastructure, including the storm drain system would be designed to adequately accommodate development. Drainage is discussed in Section 5.9, *Hydrology and Water Quality*.

5.17.2 Current Conditions

There are no changes to the utility providers servicing the Tustin Legacy Specific Plan area. Water and wastewater services are provided by Irvine Ranch Water District (IRWD). Wastewater from the project area is treated at IRWD's Michelson Water Recycling Plant, which has capacity of 28 mgd and average wastewater flows of 18 mgd, and thus has residual capacity of about 10 mgd. A forecast Phase III expansion of the Michelson plant is planned to increase capacity to 33 mgd by 2025 (IRWD 2014).

The storm drain system has been improved as discussed in Section 5.9, *Hydrology and Water Quality*. The storm drain plan includes five major drainage areas with main line facilities and improvements to the OCFCD Barranca Channel. The backbone system follows the alignments of the major arterial roadways. The use of retention basins was also considered.

Solid waste services are provided by the Orange County Waste and Recycling and CR&R Waste Services. Electricity is provided by Southern California Edison, and natural gas is provided by Southern California Gas Company. Telephone and cable are provided by AT&T, Cox Cable, and Time Warner.

5.17.3 Impacts Associated with the Modified Project

Would the modified project:

Environmental Issues	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?				X	
b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	X				
e) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X	

Comments:

a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Construction and operation of projects developed pursuant to the Specific Plan Amendment would not exceed treatment requirements for wastewater set by the Santa Ana RWQCB. The Specific Plan Amendment may result in an increase in wastewater generation; however increases would not be substantial and would not result in a change in the wastewater infrastructure such that it would result in an exceedance of wastewater

treatment requirements of the RWQCB. As stated, wastewater from the project area is treated at IRWD's Michelson Water Recycling Plant, which has capacity of 28 mgd and residual capacity of about 10 mgd. A forecast Phase III expansion of the Michelson plant is planned to increase capacity to 33 mgd by 2025 (IRWD 2014). Any increases in wastewater generation from the project area would be well within the residual capacity planned for treatment at the Michelson plant. No new significant impact would occur.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Change in Project Requiring EIR Revisions. Water and wastewater treatment facilities and construction of upgrades were analyzed in the FEIS/EIR. As stated, IRWD provides water and wastewater services to the project area. The Specific Plan Amendment would result in an increase of 2,212 residential units and decrease of 1,755,306 nonresidential square feet. Although the overall intensity of development is about the same due to the offset from decreasing nonresidential square feet, water demand at the site has the potential to increase. The specific types of residential uses and exact mix of nonresidential square footage is unknown at this time. IRWD's water demand rates are based on the density of residential uses and types of nonresidential use. It is anticipated that the Specific Plan Amendment would increase commercial uses with a higher water demand rate (0.22 gpd per square foot of community commercial use) and decrease industrial and office uses with a lower water demand rate (0.06 gpd per square foot of office or industrial use). Therefore, depending upon the mix of land uses the Specific Plan Amendment has the potential to result in an increase of water demand. Wastewater generation is calculated as 100 percent of indoor water demands or approximately 70 percent. Therefore, the Specific Plan Amendment could also result in an increase in wastewater generation. Further evaluation in the SEIR is required to determine the water demand and wastewater generation and its potential effect on the proposed backbone infrastructure and whether there is a new significant impact.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The Specific Plan Amendment includes plans for a network of storm drains connecting to existing drainage facilities along the project perimeter. As described in Section 5.9.3.d, the Specific Plan Amendment would be consistent with the 2004 Master Runoff Management Plan for Tustin Legacy. Runoff rates and volumes from the site after buildout of the Specific Plan Amendment are expected to be reduced compared to buildout of the Adopted Specific Plan due to the conversion of nonresidential uses with greater impervious surface to residential uses with less impervious surface. Additionally, the MS4 Permit establishes increased requirements for detaining, infiltrating, evaporating, or transpiring stormwater onsite. Thus, Specific Plan Amendment buildout would not require construction of additional or expanded storm drainage facilities compared to implementation of the Adopted Specific Plan. Therefore, no substantial changes to the FEIS/EIR would be required. No new significant impact would occur.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Change in Project Requiring EIR Revisions. As stated above the project may result in an increase in water demand. Since the previous environmental analysis was prepared, California has experienced drought conditions limiting water supply. Further evaluation in the SEIR is required to determine the water demand expected at buildout in comparison to the FEIS/EIR and whether there are any new impact related to available water supply. Water conservation measures will also be identified and analyzed. Correspondence with the water service provider will be conducted to assess water availability. This issue will be addressed in the SEIR.

e) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. There is adequate wastewater treatment capacity in the region for project-generated wastewater, as substantiated above in Section 5.17.2.a. No new significant impact would occur.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

Landfill Capacity

In 2013 about 96 percent of the solid waste landfilled from the City of Tustin was disposed of at two facilities, the Frank Bowerman Sanitary Landfill in the City of Irvine and the Olinda Alpha Sanitary Landfill in the City of Brea (CalRecycle 2014a). In 2013 the two landfills had a combined maximum permitted tonnage of 19,500 tons per day and residual capacity of nearly 8,700 tons per day, as shown in Table 10.

Table 10 Landfill Capacities

Landfill	Location	Remaining Capacity as of 6/30/13 (cubic yards)	Estimated Closure Date	Maximum Daily Permitted Tonnage (tons per day)	Average Daily Disposal, 2013 (tons)	Residual Capacity, Tons per Day
Frank R. Bowerman	11002 Bee Canyon Access Road Irvine, CA 92602	192,300,000	2053	11,500	5,357	6,143
Olinda Alpha	1942 North Valencia Avenue Brea, CA 92823	43,900,000	2021	8,000	5,447	2,553
Total		236,200,000		19,500	10,804	8,696

Sources: Arnau 2013; CalRecycle 2014b; CalRecycle 2014c; CalRecycle 2014d.

5. Environmental Analysis

Implementation of the Specific Plan Amendment is estimated to increase solid waste generation by about 1,214 pounds per day (0.6 tons per day) compared to the Adopted Specific Plan, as shown in Table 11. This slight increase in solid waste is well within the residual capacity of the Frank R. Bowerman and Olinda Alpha landfills. No adverse impact would occur.

Table 11 Net Change in Solid Waste Generation Due to Specific Plan Amendment Buildout

Land Use	Net Change	Solid Waste Generation, Pounds per Day	
		Per Unit[1]	Total
Residential	2,212 Units	5.31	11,746
Nonresidential	–1,755,306 square feet	0.006	–10,532
		Total	–1,002

[1] Source: CalRecycle 2009

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR.

State Regulations

Assembly Bill 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling, composting, and land disposal of waste. AB 939 required every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates; actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

Assembly Bill 341 (Chapter 476, Statutes of 2011) increased the statewide solid waste diversion goal to 75 percent by 2020. The law also mandates recycling for commercial and multifamily residential land uses as well as schools and school districts.

Section 5.408 of the 2013 California Green Building Standards Code (Title 24, California Code of Regulations, Part 11) requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In 2013 the target disposal rates for the City of Tustin were 6.1 pounds per day (ppd) per resident and 10.1 ppd per employee; actual disposal rates were 2.8 ppd per resident and 5.6 ppd per employee, consistent with AB 939 (CalRecycle 2014e).

City of Tustin Municipal Code

City of Tustin Municipal Code Sections 4351 et seq. require diversion of construction and demolition debris in conformance with California Green Building Standards Code Section 5.408.

Impacts

Projects developed pursuant to the Specific Plan Amendment would include storage areas for recyclable materials as well as solid waste. CR&R Waste & Recycling Services, which collects solid waste from the City of Tustin, provides residential customers with a black bin for solid waste and a blue bin for recyclable materials. Commercial and multifamily residential land uses and schools would segregate recyclable materials in compliance with AB 341. Specific Plan Amendment buildout would not conflict with regulations governing solid waste diversion, and no new significant impact would occur.

5.18 MANDATORY FINDINGS OF SIGNIFICANCE

Would the modified project:

	Additional Environmental Analysis Required			No Additional Environmental Analysis Required	
Environmental Issues	Change in Project Requiring EIR Revisions	Change in Circumstances Requiring EIR Revisions	New Information Showing Potentially New or Increased Significant Effects	Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)		X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X				

5. Environmental Analysis

Comments:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact/No Changes or New Information Requiring Preparation of an EIR. The FEIS/EIR previously considered all environmental impacts associated with the implementation of the Specific Plan as well as mandatory findings of significance. The Specific Plan Amendment would not expand the area of development and would not impact any natural habitats or other areas inhabited by sensitive species. The proposed project would comply with mitigation measures to reduce impacts related to riparian, wetland, and other sensitive species to less than significant. Vacant land on site has been graded. As identified in the FEIS/EIR, the project may affect archeological and paleontological resources. Mitigation measures would reduce impacts to less than significant. No new significant impacts would occur.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Change in Circumstances Requiring EIR Revisions. The Specific Plan Amendment would maintain the same development area that was analyzed in the FEIS/EIR and would not increase the overall development intensity in the project area. The proposed project would stay within the existing trip budget for the Specific Plan area. Although there would be increased environmental impacts associated with the increase in 2,212 residential units, there would be a corresponding reduction in impacts resulting from the elimination of approximately 1.7 million nonresidential square feet. However, due to the change in land use distribution onsite and the changes in current conditions and circumstances since the prior environmental review, cumulative impacts related to air quality, GHG emissions, noise, and traffic will be evaluated in the SEIR.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Change in Project Requiring EIR Revisions. The Specific Plan Amendment would change the land use distribution in the project area and result in an increase in residential uses and population. Based on the analysis provided in this initial study, the following environmental impacts will be addressed in the SEIR: air quality, GHG emissions, water quality, land use, noise, population/housing, schools, traffic, and water supply availability and infrastructure.

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Appendix A
Tustin Legacy Specific Plan Amendment: Existing Traffic Conditions Memo

Appendix

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TUSTIN

BUILDING OUR FUTURE
HONORING OUR PAST

Inter-Com

DATE: OCTOBER 16, 2014

TO: JUSTINA WILLKOM, ASSISTANT DIRECTOR – PLANNING

FROM: KRYS SALDIVAR, PUBLIC WORKS MANAGER

SUBJECT: TUSTIN LEGACY SPA – EXISTING TRAFFIC CONDITIONS

The purpose of this memo is to describe the existing traffic conditions for the proposed Tustin Legacy Specific Plan Amendment project traffic analysis study area. It is an update to the previous existing data presented with the memo dated August 29, 2014. Since that time, three intersections and three roadway segments have been counted and the data are incorporated here.

Existing traffic conditions in the study area were identified based on observed traffic counts carried out in 2014. The existing circulation system includes the completion of the Tustin Ranch Road connection between Walnut Avenue and Warner Avenue which provides additional north/south capacity in the area thereby alleviating traffic conditions along Red Hill Avenue and Jamboree Road.

The average daily traffic (ADT) volumes on the arterial roadway system in the study area are illustrated in Figure 1. The peak hour intersection capacity utilization (ICU) results for the intersections within the study area illustrated in Figure 2 are summarized in Table 1 followed by detailed ICU calculation worksheets. This table shows that all intersections currently operate at acceptable levels of service with a level of service (LOS) “E” or better (ICU is 1.00 or below) for locations in the Irvine Business Complex and LOS “D” or better (ICU is .90 or below) for the remaining intersections in the study area.

EXISTING (2014)

TRAFFIC CONDITIONS

TUSTIN

COMMUNITY

TREES

CITY OF TUSTIN

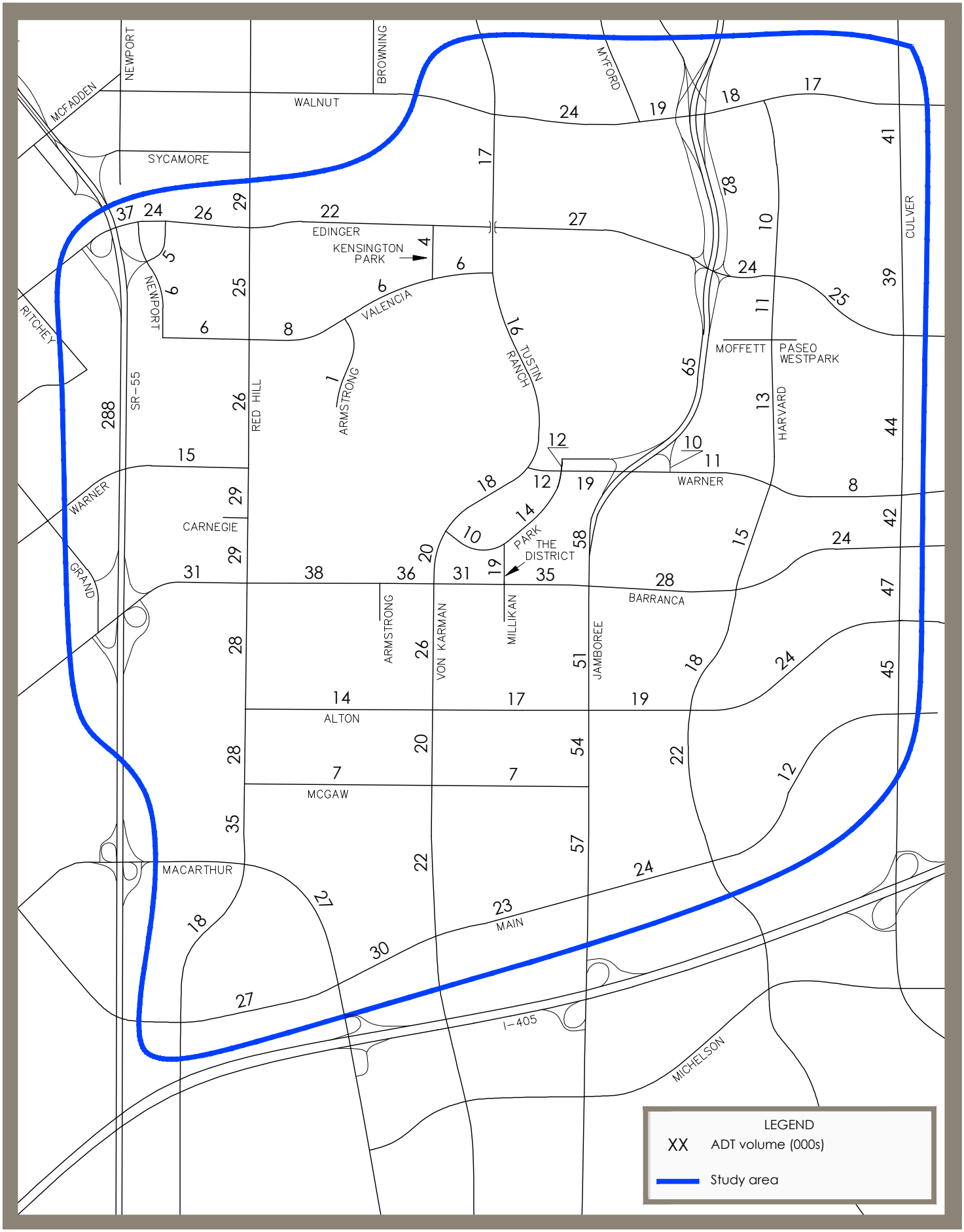
HISTORY

FUTURE

BUILDING OUR FUTURE
HONORING OUR PAST

TABLE OF CONTENTS

	Page(s)
Figure 1 – ADT Counts	1
Figure 2 – Existing Intersection Location Reference Map	2
Table 1 – Existing LOS Summary	3 to 4
ICU Worksheets	5-18
APPENDIX	A-1
Average Daily Traffic (ADT) Counts	A-2
Figure A-1 – Existing Arterial Roadway Location Reference Map	A-3
ADT Count Sheets	A-4 to A-128
Intersection Peak Hour Counts	A-129
Figure A-2 – Existing Intersection Location Reference Map	A-130
Intersection Peak Hour Count Sheets	A-131 to A-292



Stantec

Figure 1

ADT Counts

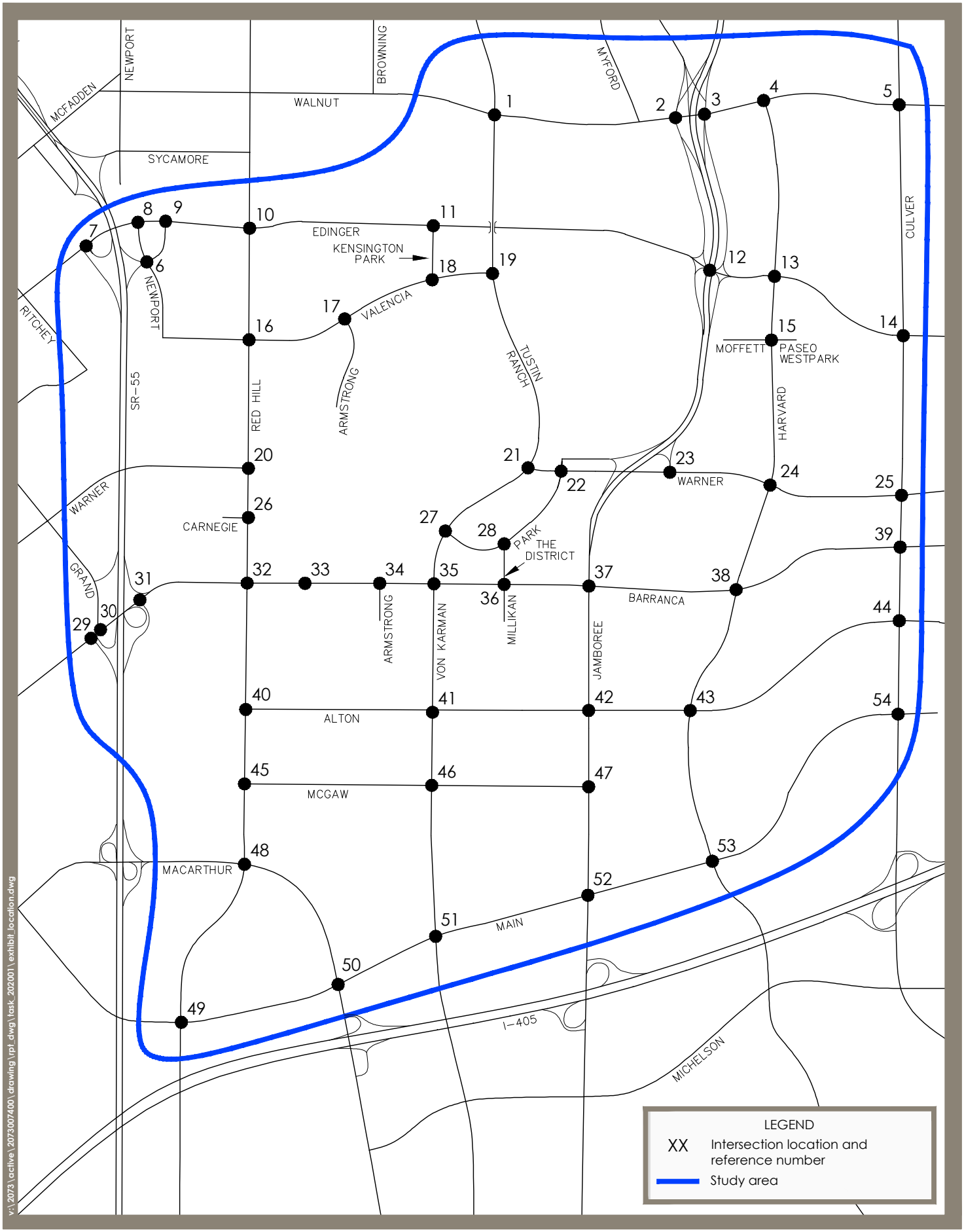


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Figure 2

Existing Intersection Location Reference Map

Table 1
EXISTING LOS SUMMARY

Intersection Location (N/S Road at E/W Road)	AM Peak ICU	AM Peak LOS	PM Peak ICU	PM Peak LOS	Date
1. Tustin Ranch Rd at Walnut	.52	A	.71	C	6/10/2014
2. Jamboree SB at Walnut	.43	A	.45	A	6/10/2014
3. Jamboree NB at Walnut	.34	A	.52	A	6/10/2014
4. Harvard at Walnut	.31	A	.38	A	6/12/2014
5. Culver at Walnut	.64	B	.73	C	6/12/2014
6. Newport at SR-55 NB Ramps	.47	A	.62	B	6/11/2014
7. Auto Mall Dr/SR-55 SB Ramps at Edinger	.53	A	.55	A	6/12/2014
8. Newport at Edinger	.63	B	.42	A	6/12/2014
9. Del Amo at Edinger	.31	A	.35	A	6/12/2014
10. Red Hill at Edinger	.55	A	.74	C	6/10/2014
11. Kensington Park Dr at Edinger	.28	A	.33	A	6/5/2014
12. Jamboree at Edinger	.51	A	.57	A	5/14/2014
13. Harvard at Edinger/ICD	.30	A	.51	A	6/12/2014
14. Culver at Irvine Center Dr	.57	A	.65	B	6/3/2014
15. Harvard at Moffett/Paseo Westpark	.19	A	.33	A	6/12/2014
16. Red Hill at Valencia	.47	A	.61	B	6/10/2014
17. Armstrong at Valencia	.26	A	.22	A	6/10/2014
18. Kensington Park Dr at Valencia	.27	A	.33	A	6/10/2014
19. Tustin Ranch Rd at Valencia	.31	A	.42	A	6/12/2014
20. Red Hill at Warner	.55	A	.59	A	6/10/2014
21. Tustin Ranch Rd at Warner	.35	A	.53	A	6/10/2014
22. Park at Warner	.35	A	.51	A	6/3/2014
23. Jamboree NB at Warner	.24	A	.54	A	5/20/2014
24. Harvard at Warner	.37	A	.49	A	6/11/2014
25. Culver at Warner	.56	A	.62	B	5/22/2014
26. Red Hill at Carnegie	.39	A	.60	A	6/10/2014
27. Tustin Ranch Rd at Park	.39	A	.52	A	6/12/2014
28. The District at Park	.15	A	.32	A	6/10/2014
29. Hotel Terrace/SR-55 SB Ramps at Dyer	.52	A	.69	B	9/23/2014
30. Grand at Dyer	.55	A	.63	B	9/23/2014
31. SR-55 NB Ramps at Dyer	.58	A	.39	A	9/23/2014
32. Red Hill at Dyer/Barranca*	.51	A	.68	B	6/10/2014
33. Aston at Barranca*	.39	A	.42	A	6/11/2014
34. Armstrong at Barranca*	.35	A	.53	A	6/3/2014
35. Tustin Ranch Rd/Von Karman at Barranca*	.67	B	.78	C	6/12/2014
36. The District/Millikan at Barranca*	.36	A	.55	A	6/12/2014
37. Jamboree at Barranca*	.75	C	.92	E	5/21/2014
38. Harvard at Barranca	.44	A	.56	A	6/11/2014
39. Culver at Barranca	.62	B	.75	C	5/20/2014
40. Red Hill at Alton*	.46	A	.78	C	6/10/2014
41. Von Karman at Alton*	.80	C	.86	D	6/12/2014
42. Jamboree at Alton*	.62	B	.78	C	6/10/2014
43. Harvard at Alton	.58	A	.67	B	6/12/2014
44. Culver at Alton	.65	B	.72	C	5/28/2014
45. Red Hill at McGaw*	.43	A	.59	A	6/10/2014
46. Von Karman at McGaw*	.60	A	.65	B	6/10/2014
47. Jamboree at McGaw*	.48	A	.69	B	6/10/2014
48. Red Hill at MacArthur*	.61	B	.75	C	6/10/2014
49. Red Hill at Main*	.52	A	.68	B	6/10/2014
50. MacArthur at Main*	.63	B	.71	C	6/10/2014

Table 1
EXISTING LOS SUMMARY

Intersection Location (N/S Road at E/W Road)	AM Peak		PM Peak		Date
	ICU	LOS	ICU	LOS	
51. Von Karman at Main*	.53	A	.57	A	6/12/2014
52. Jamboree at Main*	.67	B	.85	D	6/10/2014
53. Harvard at Main	.53	A	.69	B	6/10/2014
54. Culver at Main	.66	B	.66	B	6/10/2014

Abbreviations:
- ICU Intersection Capacity Utilization
- LOS Level of Service
- N/S, E/W North/South, East/West

LOS Ranges:
- A .00 - .60
- B .61 - .70
- C .71 - .80
- D .81 - .90
- E .91 - 1.00
- F > 1.00

* LOS E is acceptable at this intersection in the Irvine Business Complex.

1. Tustin Ranch Rd at Walnut

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	25	.01*	261	.08
NBT	3	5100	169	.03	1215	.24*
NBR	1	1700	82	.05	141	.08
SBL	2	3400	506	.15	294	.09*
SBT	3	5100	987	.23*	436	.13
SBR	0	0	184		360	.21
EBL	2	3400	294	.09	305	.09*
EBT	2	3400	486	.18*	288	.10
EBR	0	0	139		47	
WBL	2	3400	179	.05*	110	.03
WBT	2	3400	142	.04	764	.22*
WBR	1	1700	91	.05	529	.31
Right Turn Adjustment					WBR	.02*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.71**

2. Jamboree SB at Walnut

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	185	.05	243	.07
SBT	2	3400	519	.15*	385	.11*
SBR	1	1700	335	.20	143	.08
EBL	0	0	0		0	
EBT	3	5100	279	.05*	705	.14*
EBR	1	1700	181	.11	379	.22
WBL	2	3400	339	.10*	249	.07*
WBT	3	5100	542	.11	882	.17
WBR	0	0	0		0	
Right Turn Adjustment			Multi	.08*	EBR	.08*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.43**		**.45**

3. Jamboree NB at Walnut

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	249	.07	308	.09
NBT	2	3400	307	.09*	546	.16*
NBR	d	1700	113	.07	377	.22
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	2	3400	76	.02*	304	.09*
EBT	3	5100	384	.08	633	.12
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	622	.12*	831	.16*
WBR	1	1700	304	.18	379	.22
Right Turn Adjustment			WBR	.06*	WBR	.06*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.34**		**.52**

4. Harvard at Walnut

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	144	.04*	188	.06*
NBT	1	1700	47	.03	48	.03
NBR	d	1700	36	.02	141	.08
SBL	1	1700	47	.03	87	.05
SBT	1	1700	52	.03*	56	.03*
SBR	1	1700	137	.08	36	.02
EBL	1	1700	27	.02*	104	.06
EBT	2	3400	167	.05	565	.17*
EBR	1	1700	73	.04	212	.12
WBL	1	1700	49	.03	118	.07*
WBT	2	3400	460	.14*	501	.15
WBR	d	1700	74	.04	29	.02
Right Turn Adjustment			SBR	.03*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.31**		**.38**

5. Culver at Walnut

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	109	.03*	195	.06
NBT	3	5100	795	.16	1614	.32*
NBR	1	1700	240	.14	386	.23
SBL	2	3400	140	.04	268	.08*
SBT	3	5100	1728	.34*	1254	.25
SBR	1	1700	413	.24	270	.16
EBL	2	3400	264	.08*	427	.13*
EBT	2	3400	275	.08	431	.13
EBR	1	1700	168	.10	133	.08
WBL	2	3400	423	.12	364	.11
WBT	2	3400	474	.14*	511	.15*
WBR	1	1700	217	.13	183	.11
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.73**

6. Newport at SR-55 NB Ramps

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	90	.03*	671	.20*
NBT	3	5100	50	.01	225	.04
NBR	d	1700	3	.00	40	.02
SBL	1	1700	19	.01	10	.01
SBT	3	5100	345	.07*	77	.02*
SBR	1	1700	574	.34	386	.23
EBL	2	3400	303	.09*	76	.02*
EBT	2	3400	169	.08	23	.01
EBR	0	0	113		6	
WBL	1	1700	6	.00	3	.00
WBT	2	3400	93	.03*	487	.14*
WBR	d	1700	1	.00	13	.01
Right Turn Adjustment			SBR	.20*	SBR	.19*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.62**

7. Auto Mall Dr/SR-55 SB Ramps at Edinger

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		426		325	
NBT	0.5	3400	67	.15*	33	.11*
NBR	2	3400	543	.16	256	.08
SBL	1	1700	60	.04*	105	.06*
SBT	1	1700	31	.02	62	.04
SBR	1	1700	9	.01	36	.02
EBL	1	1700	21	.01	33	.02
EBT	3	5100	1032	.20*	1150	.23*
EBR	f		288		305	
WBL	2	3400	297	.09*	353	.10*
WBT	3	5100	848	.19	1044	.22
WBR	0	0	116		93	
Clearance Interval				.05*		.05*
Note: Assumes N/S Split Phasing						
TOTAL CAPACITY UTILIZATION				**.53**		**.55**

8. Newport at Edinger

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	333	.10*	304	.09*
NBT	0	0	0		0	
NBR	1	1700	83	.05	57	.03
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	759	.15*	1108	.22*
EBR	1	1700	814	.48	406	.24
WBL	1	1700	135	.08*	100	.06*
WBT	3	5100	946	.19	1189	.23
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.25*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.63**		**.42**

9. Del Amo at Edinger

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		3		46	
NBT	0.5	3400	1	.00*	0	.01*
NBR	1	1700	162	.10	93	.05
SBL	0	0	4		2	
SBT	1	1700	2	.00*	1	.00*
SBR	0	0	2		2	
EBL	1	1700	1	.00	0	.00
EBT	3	5100	742	.15	1030	.20*
EBR	d	1700	57	.03	163	.10
WBL	2	3400	128	.04	294	.09*
WBT	3	5100	1058	.21*	1236	.24
WBR	0	0	2		0	
Right Turn Adjustment			NBR	.05*		
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .31 .35

10. Red Hill at Edinger

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	72	.02*	204	.06
NBT	3	5100	330	.06	1752	.34*
NBR	1	1700	55	.03	178	.10
SBL	2	3400	187	.06	133	.04*
SBT	3	5100	1208	.24*	415	.08
SBR	1	1700	352	.21	247	.15
EBL	2	3400	239	.07*	361	.11*
EBT	3	5100	457	.09	775	.15
EBR	1	1700	136	.08	90	.05
WBL	2	3400	331	.10	115	.03
WBT	3	5100	886	.17*	984	.19*
WBR	1	1700	111	.07	386	.23
Right Turn Adjustment					WBR	.01*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .55 .74

11. Kensington Park Dr at Edinger

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	53	.02*	41	.01*
NBT	0	0	0		0	
NBR	1	1700	91	.05	144	.08
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	707	.14	929	.18
EBR	1	1700	32	.02	86	.05
WBL	2	3400	89	.03	143	.04
WBT	3	5100	1089	.21*	1374	.27*
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .28 .33

12. Jamboree at Edinger

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	65	.02	227	.07
NBT	0	0	0		0	
NBR	1	1700	32	.02	229	.13
SBL	2	3400	144	.04*	259	.08*
SBT	0	0	0		0	
SBR	1	1700	507	.30	355	.21
EBL	2	3400	194	.06*	436	.13*
EBT	3	5100	521	.12	824	.18
EBR	0	0	85		105	
WBL	2	3400	198	.06	136	.04
WBT	3	5100	686	.13*	963	.19*
WBR	1	1700	202	.12	253	.15
Right Turn Adjustment			SBR	.23*	Multi	.12*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .51 .57

13. Harvard at Edinger/ICD

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	131	.04*	181	.05
NBT	2	3400	81	.02	454	.13*
NBR	1	1700	66	.04	217	.13
SBL	1	1700	65	.04	80	.05*
SBT	2	3400	223	.07*	176	.05
SBR	d	1700	114	.07	66	.04
EBL	2	3400	35	.01*	105	.03*
EBT	3	5100	559	.11	863	.17
EBR	1	1700	99	.06	160	.09
WBL	2	3400	72	.02	115	.03
WBT	3	5100	665	.13*	1285	.25*
WBR	d	1700	39	.02	82	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.30**		**.51**

14. Culver at Irvine Center Dr

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	166	.05*	346	.10
NBT	4	6800	847	.12	1841	.27*
NBR	f		206		346	
SBL	2	3400	181	.05	261	.08*
SBT	4	6800	1823	.27*	1191	.18
SBR	1	1700	124	.07	128	.08
EBL	2	3400	71	.02	162	.05*
EBT	3	5100	546	.11*	648	.13
EBR	f		156		178	
WBL	2	3400	318	.09*	285	.08
WBT	3	5100	549	.11	1011	.20*
WBR	f		92		163	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.65**

15. Harvard at Moffett/Paseo Westpark

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	2	.00	22	.01
NBT	2	3400	197	.06	799	.24*
NBR	d	1700	27	.02	65	.04
SBL	1	1700	24	.01	35	.02*
SBT	2	3400	351	.10*	363	.11
SBR	1	1700	10	.01	38	.02
EBL	1	1700	11	.01	18	.01*
EBT	1	1700	7	.00*	6	.00
EBR	d	1700	23	.01	16	.01
WBL	1	1700	48	.03*	22	.01
WBT	1	1700	2	.00	9	.01*
WBR	d	1700	70	.04	58	.03
Right Turn Adjustment			EBR	.01*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.19**		**.33**

16. Red Hill at Valencia

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	58	.03*	206	.12
NBT	3	5100	357	.07	1961	.38*
NBR	d	1700	82	.05	365	.21
SBL	1	1700	115	.07	82	.05*
SBT	3	5100	1152	.25*	455	.10
SBR	0	0	103		43	
EBL	1	1700	12	.01*	52	.03
EBT	1	1700	53	.03	155	.09*
EBR	1	1700	44	.03	55	.03
WBL	2	3400	277	.08	120	.04*
WBT	1	1700	213	.13*	73	.04
WBR	1	1700	93	.05	48	.03
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.61**

17. Armstrong at Valencia

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		4		2	
NBT	0.5	3400	0	.00*	1	.00*
NBR	1	1700	6	.00	0	.00
SBL	1	1700	25	.01	12	.01
SBT	1	1700	0	.06*	2	.01*
SBR	0	0	101		22	
EBL	1	1700	14	.01*	70	.04
EBT	2	3400	97	.03	547	.16*
EBR	1	1700	3	.00	40	.02
WBL	2	3400	5	.00	7	.00
WBT	2	3400	458	.14*	179	.06
WBR	0	0	11		29	
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .26 .22

18. Kensington Park Dr at Valencia

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	58	.03*	90	.05*
SBT	0	0	0		0	
SBR	1	1700	61	.04	78	.05
EBL	2	3400	21	.01*	141	.04
EBT	1	1700	136	.08	396	.23*
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	311	.18*	175	.10
WBR	1	1700	28	.02	96	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .27 .33

19. Tustin Ranch Rd at Valencia

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	44	.01*	136	.04
NBT	3	5100	175	.03	1324	.26*
NBR	0	0	0		0	
SBL	1	1700	0	.00	0	.00
SBT	3	5100	1024	.20*	437	.09
SBR	1	1700	265	.16	124	.07
EBL	2	3400	98	.03*	373	.11*
EBT	0	0	0		0	
EBR	1	1700	105	.06	97	.06
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.02*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .31 .42

20. Red Hill at Warner

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	199	.06*	521	.15
NBT	3	5100	373	.07	2030	.40*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	5100	1145	.29*	525	.15
SBR	0	0	339		318	.19
EBL	2	3400	256	.08*	473	.14*
EBT	0	0	1		0	
EBR	1	1700	333	.20	260	.15
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			EBR	.07*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .55 .59

21. Tustin Ranch Rd at Warner

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	112	.02	1190	.23*
NBR	1	1700	58	.03	474	.28
SBL	2	3400	210	.06	207	.06*
SBT	3	5100	963	.19*	317	.06
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	3	5100	553	.11*	176	.03*
WBT	0	0	0		0	
WBR	1	1700	111	.07	349	.21
Right Turn Adjustment					Multi	.16*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .35 .53

22. Park at Warner

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	29	.02	90	.05
NBT	1	1700	25	.01*	43	.03*
NBR	1	1700	88	.05	312	.18
SBL	1	1700	160	.09*	183	.11*
SBT	2	3400	167	.05	249	.07
SBR	1	1700	345	.20	43	.03
EBL	1	1700	7	.00	16	.01
EBT	2	3400	192	.06*	528	.16*
EBR	1	1700	53	.03	76	.04
WBL	2	3400	62	.02*	185	.05*
WBT	2	3400	194	.06	294	.09
WBR	1	1700	24	.01	14	.01
Right Turn Adjustment			Multi	.12*	NBR	.11*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .35 .51

23. Jamboree NB at Warner

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	1	1700	0	.00	0	.00
NBR	0	0	1		4	
SBL	0	0	4		2	
SBT	1	1700	0	.00*	2	.00*
SBR	1	1700	24	.01	70	.04
EBL	1	1700	158	.09*	607	.36*
EBT	2	3400	199	.06	574	.17
EBR	d	1700	1	.00	1	.00
WBL	1	1700	3	.00	5	.00
WBT	2	3400	281	.08*	426	.13*
WBR	d	1700	169	.10	171	.10
Right Turn Adjustment			WBR	.02*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .24 .54

24. Harvard at Warner

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	68	.04*	329	.19*
NBT	2	3400	183	.05	746	.22
NBR	d	1700	21	.01	93	.05
SBL	1	1700	95	.06	62	.04
SBT	2	3400	552	.16*	280	.08*
SBR	d	1700	95	.06	54	.03
EBL	1	1700	62	.04*	150	.09*
EBT	2	3400	126	.04	352	.10
EBR	d	1700	101	.06	85	.05
WBL	1	1700	69	.04	40	.02
WBT	2	3400	278	.08*	275	.08*
WBR	d	1700	74	.04	44	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .37 .49

25. Culver at Warner

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	29	.02*	76	.04
NBT	3	5100	887	.17	2078	.41*
NBR	1	1700	42	.02	132	.08
SBL	1	1700	52	.03	82	.05*
SBT	3	5100	1954	.38*	1398	.27
SBR	d	1700	67	.04	141	.08
EBL	1	1700	120	.07*	129	.08*
EBT	2	3400	36	.01	136	.04
EBR	d	1700	90	.05	83	.05
WBL	1	1700	136	.08	81	.05
WBT	2	3400	133	.04*	95	.03*
WBR	d	1700	138	.08	116	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .56 .62

26. Red Hill at Carnegie

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	79	.05*	37	.02
NBT	3	5100	556	.11	2468	.48*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	3	5100	1403	.29*	745	.15
SBR	0	0	98		15	
EBL	1	1700	1	.00	114	.07*
EBT	1	1700	0	.00	0	.05
EBR	0	0	4		77	
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .39 .60

27. Tustin Ranch Rd at Park

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	5	.00	0	.00
NBT	3	5100	159	.03	1491	.29*
NBR	1	1700	54	.03	341	.20
SBL	2	3400	61	.02	130	.04*
SBT	3	5100	1403	.28*	350	.07
SBR	1	1700	26	.02	2	.00
EBL	0	0	4		5	
EBT	1	1700	0	.01*	0	.01*
EBR	0	0	8		17	
WBL	1	1700	89	.05*	229	.13*
WBT	0	0	0		0	
WBR	1	1700	10	.01	152	.09
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .39 .52

28. The District at Park

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	23	.01*	107	.06
NBT	2	3400	45	.02	171	.09*
NBR	0	0	38		150	
SBL	1	1700	8	.00	32	.02*
SBT	1	1700	34	.02*	86	.05
SBR	1	1700	5	.00	21	.01
EBL	1	1700	6	.00	26	.02
EBT	1	1700	29	.02*	124	.07*
EBR	1	1700	28	.02	96	.06
WBL	1	1700	87	.05*	154	.09*
WBT	1	1700	61	.04	121	.07
WBR	1	1700	16	.01	37	.02
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .15 .32

29. Hotel Terrace/SR-55 SB Ramps at Dyer

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		231		256	
NBT	0.5	3400	16	.07*	4	.08*
NBR	2	3400	468	.14	211	.06
SBL	0.5		58		103	
SBT	1.5	3400	153	.06*	225	.10*
SBR	1	1700	83	.05	115	.07
EBL	1	1700	28	.02	86	.05
EBT	3	5100	1220	.24*	1510	.30*
EBR	1	1700	284	.17	236	.14
WBL	2	3400	339	.10*	536	.16*
WBT	3	5100	807	.16	1072	.21
WBR	1	1700	93	.05	57	.03
Clearance Interval				.05*		.05*

Note: Assumes N/S Split Phasing

TOTAL CAPACITY UTILIZATION .52 .69

30. Grand at Dyer

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	2	3400	587	.17*	328	.10*
SBT	0	0	0		0	
SBR	1	1700	404	.24	413	.24
EBL	2	3400	185	.05	337	.10*
EBT	3	5100	1564	.31*	1418	.28
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	3	5100	829	.24	1194	.32*
WBR	0	0	531	.31	429	
Right Turn Adjustment			SBR	.02*	SBR	.06*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .55 .63

31. SR-55 NB Ramps at Dyer

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1.5		692	{.22}*	181	.05*
NBT	0	5100	0	.22	0	
NBR	1.5		448		81	
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1560	.31*	1136	.22
EBR	f		578		641	
WBL	0	0	0		0	
WBT	3	5100	683	.13	1463	.29*
WBR	f		278		1001	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .58 .39

32. Red Hill at Dyer/Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	112	.03*	358	.11
NBT	4	6800	311	.05	1829	.27*
NBR	d	1700	91	.05	363	.21
SBL	2	3400	351	.10	337	.10*
SBT	4	6800	954	.14*	454	.07
SBR	d	1700	162	.10	123	.07
EBL	2	3400	102	.03	215	.06*
EBT	4	6800	787	.15*	867	.14
EBR	0	0	218		88	
WBL	2	3400	468	.14*	135	.04
WBT	3	5100	477	.09	868	.17*
WBR	1	1700	192	.11	472	.28
Right Turn Adjustment					WBR	.03*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .51 .68

33. Aston at Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	13	.01*	49	.03*
NBT	0	0	0		0	
NBR	1	1700	18	.01	114	.07
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	1172	.23*	1507	.30*
EBR	1	1700	140	.08	56	.03
WBL	1	1700	175	.10*	14	.01*
WBT	3	5100	1147	.22	1585	.31
WBR	0	0	0		0	
Right Turn Adjustment					NBR	.03*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .39 .42

34. Armstrong at Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	60	.02*	423	.12*
NBT	0	0	0		0	
NBR	1	1700	12	.01	260	.15
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	967	.19*	1615	.32*
EBR	d	1700	140	.08	47	.03
WBL	1	1700	146	.09*	64	.04*
WBT	3	5100	1319	.26	1245	.24
WBR	0	0	0		0	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .35 .53

35. Tustin Ranch Rd/Von Karman at Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	78	.02*	274	.08
NBT	2	3400	76	.02	1125	.33*
NBR	d	1700	53	.03	377	.22
SBL	2	3400	70	.02	62	.02*
SBT	2	3400	1040	.31*	273	.08
SBR	2	3400	317	.09	283	.08
EBL	1	1700	126	.07	390	.23*
EBT	3	5100	624	.12*	1480	.29
EBR	d	1700	237	.14	105	.06
WBL	2	3400	591	.17*	216	.06
WBT	3	5100	941	.18	761	.15*
WBR	1	1700	26	.02	174	.10
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .67 .78

36. The District/Millikan at Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	46	.03*	150	.09
NBT	2	3400	14	.00	127	.04*
NBR	d	1700	33	.02	146	.09
SBL	2	3400	87	.03	353	.10*
SBT	0.5	3400	83	.05*	44	{.03}
SBR	1.5		100	{.04}	186	
EBL	2	3400	53	.02*	217	.06
EBT	3	5100	555	.11	1582	.31*
EBR	d	1700	150	.09	100	.06
WBL	1	1700	74	.04	30	.02*
WBT	4	6800	1428	.21*	784	.12
WBR	1	1700	130	.08	371	.22
Right Turn Adjustment					NBR	.03*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .36 .55

37. Jamboree at Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	117	.03*	397	.12
NBT	4	6800	681	.10	2776	.41*
NBR	f		107		94	
SBL	2	3400	481	.14	306	.09*
SBT	4	6800	3272	.48*	1221	.18
SBR	f		1254		232	
EBL	2.5		180	.05	1140	
EBT	2.5	8500	442	.09*	801	.23*
EBR	1	1700	118	.07	232	.14
WBL	2	3400	229	.07	132	.04
WBT	3	5100	489	.10*	694	.14*
WBR	f		151		334	
Clearance Interval				.05*		.05*

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .75 .92

38. Harvard at Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	138	.08*	215	.13
NBT	2	3400	199	.06	830	.24*
NBR	1	1700	54	.03	165	.10
SBL	1	1700	144	.08	106	.06*
SBT	2	3400	591	.17*	300	.09
SBR	1	1700	180	.11	47	.03
EBL	2	3400	30	.01*	156	.05*
EBT	3	5100	403	.08	853	.17
EBR	1	1700	160	.09	200	.12
WBL	2	3400	183	.05	88	.03
WBT	3	5100	680	.13*	797	.16*
WBR	d	1700	57	.03	126	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .44 .56

39. Culver at Barranca

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	76	.02*	146	.04
NBT	3	5100	728	.14	1546	.30*
NBR	1	1700	290	.17	324	.19
SBL	2	3400	375	.11	248	.07*
SBT	3	5100	1673	.33*	1076	.21
SBR	f		132		108	
EBL	2	3400	115	.03	348	.10
EBT	2	3400	466	.14*	837	.25*
EBR	1	1700	204	.12	195	.11
WBL	2	3400	284	.08*	268	.08*
WBT	2	3400	499	.15	685	.20
WBR	d	1700	124	.07	324	.19
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .75

40. Red Hill at Alton

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	115	.07*	43	.03
NBT	3	5100	528	.10	1971	.39*
NBR	d	1700	326	.19	239	.14
SBL	1	1700	271	.16	158	.09*
SBT	3	5100	1147	.22*	661	.13
SBR	d	1700	122	.07	6	.00
EBL	1	1700	7	.00	78	.05
EBT	2	3400	40	.01	254	.07*
EBR	1	1700	20	.01	132	.08
WBL	2	3400	278	.08	482	.14*
WBT	1	1700	197	.12*	116	.07
WBR	1	1700	145	.09	461	.27
Right Turn Adjustment					WBR	.04*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .46 .78

41. Von Karman at Alton

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	46	.03*	84	.05
NBT	2	3400	262	.08	1253	.37*
NBR	d	1700	61	.04	294	.17
SBL	1	1700	63	.04	169	.10*
SBT	2	3400	1576	.46*	454	.13
SBR	d	1700	156	.09	193	.11
EBL	1	1700	48	.03*	185	.11
EBT	2	3400	224	.07	966	.28*
EBR	d	1700	59	.03	68	.04
WBL	1	1700	226	.13	99	.06*
WBT	2	3400	765	.23*	614	.18
WBR	d	1700	121	.07	99	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .80 .86

42. Jamboree at Alton

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	206	.06*	219	.06
NBT	4	6800	803	.12	2920	.43*
NBR	1	1700	135	.08	219	.13
SBL	2	3400	173	.05	180	.05*
SBT	4	6800	2276	.33*	1485	.22
SBR	d	1700	244	.14	166	.10
EBL	2	3400	51	.02*	456	.13
EBT	3	5100	176	.03	898	.18*
EBR	d	1700	68	.04	235	.14
WBL	2	3400	178	.05	239	.07*
WBT	3	5100	819	.16*	511	.10
WBR	d	1700	115	.07	264	.16
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .78

43. Harvard at Alton

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	190	.11*	153	.09
NBT	2	3400	351	.10	1242	.37*
NBR	d	1700	69	.04	213	.13
SBL	1	1700	23	.01	68	.04*
SBT	2	3400	887	.26*	563	.17
SBR	1	1700	168	.10	35	.02
EBL	2	3400	51	.02*	192	.06
EBT	3	5100	170	.03	857	.17*
EBR	1	1700	143	.08	359	.21
WBL	2	3400	198	.06	124	.04*
WBT	3	5100	739	.14*	549	.11
WBR	d	1700	27	.02	47	.03
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .58 .67

44. Culver at Alton

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	122	.04*	201	.06
NBT	3	5100	851	.17	1468	.29*
NBR	1	1700	226	.13	350	.21
SBL	2	3400	143	.04	246	.07*
SBT	3	5100	1782	.35*	1010	.20
SBR	f		262		279	
EBL	2	3400	106	.03*	322	.09
EBT	2	3400	293	.09	815	.24*
EBR	1	1700	131	.08	237	.14
WBL	2	3400	255	.08	221	.07*
WBT	2	3400	610	.18*	646	.19
WBR	1	1700	149	.09	246	.14
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .65 .72

45. Red Hill at McGaw

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	258	.08*	38	.01
NBT	3	5100	923	.18	1973	.39*
NBR	1	1700	323	.19	482	.28
SBL	2	3400	114	.03	35	.01*
SBT	3	5100	1250	.25*	1168	.23
SBR	d	1700	93	.05	13	.01
EBL	1	1700	13	.01	62	.04
EBT	2	3400	35	.01*	103	.03*
EBR	d	1700	35	.02	257	.15
WBL	2	3400	124	.04*	379	.11*
WBT	2	3400	75	.03	104	.06
WBR	0	0	34		174	.10
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .43 .59

46. Von Karman at McGaw

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	30	.02*	75	.04
NBT	2	3400	337	.10	1356	.40*
NBR	d	1700	33	.02	221	.13
SBL	1	1700	42	.02	48	.03*
SBT	2	3400	1613	.47*	565	.17
SBR	d	1700	74	.04	28	.02
EBL	1	1700	14	.01*	149	.09
EBT	2	3400	82	.04	454	.15*
EBR	0	0	40		52	
WBL	1	1700	40	.02	29	.02*
WBT	2	3400	152	.05*	128	.06
WBR	0	0	15		76	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .60 .65

47. Jamboree at McGaw

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	128	.04*	94	.03
NBT	4	6800	1204	.18	3095	.46*
NBR	d	1700	36	.02	25	.01
SBL	2	3400	14	.00	11	.00
SBT	4	6800	2485	.37*	1647	.24
SBR	d	1700	116	.07	52	.03
EBL	1	1700	14	.01*	295	.17*
EBT	2	3400	25	.01	249	.07
EBR	d	1700	49	.03	179	.11
WBL	1	1700	23	.01	45	.03
WBT	2	3400	26	.01*	30	.01*
WBR	0	0	12		19	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .48 .69

48. Red Hill at MacArthur

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	88	.03	172	.05
NBT	3	5100	559	.11*	1060	.21*
NBR	d	1700	12	.01	28	.02
SBL	2	3400	295	.09*	314	.09*
SBT	3	5100	682	.13	798	.16
SBR	f		381		941	
EBL	2	3400	1005	.30*	774	.23*
EBT	3	5100	903	.18	571	.11
EBR	d	1700	129	.08	107	.06
WBL	1	1700	50	.03	67	.04
WBT	3	5100	307	.06*	862	.17*
WBR	f		495		861	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .61 .75

49. Red Hill at Main

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	110	.03	268	.08*
NBT	2	3400	519	.15*	829	.24
NBR	1	1700	378	.22	280	.16
SBL	2	3400	75	.02*	71	.02
SBT	2	3400	395	.12	664	.20*
SBR	d	1700	123	.07	253	.15
EBL	2	3400	137	.04	178	.05*
EBT	3	5100	1097	.22*	757	.15
EBR	d	1700	205	.12	151	.09
WBL	2	3400	163	.05*	328	.10
WBT	3	5100	358	.07	1536	.30*
WBR	d	1700	75	.04	95	.06
Right Turn Adjustment			NBR	.03*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.52** **.68**

50. MacArthur at Main

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	717	.21*	603	.18
NBT	4	6800	897	.13	1404	.21*
NBR	f		1475		435	
SBL	2	3400	494	.15	289	.09*
SBT	4	6800	577	.08*	764	.11
SBR	1	1700	80	.05	52	.03
EBL	1	1700	56	.03	44	.03
EBT	3	5100	1044	.20*	979	.19*
EBR	1	1700	496	.29	560	.33
WBL	2	3400	318	.09*	569	.17*
WBT	3	5100	710	.14	748	.15
WBR	f		117		392	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.63** **.71**

51. Von Karman at Main

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	101	.03*	319	.09
NBT	2	3400	250	.07	828	.24*
NBR	1	1700	92	.05	339	.20
SBL	1	1700	132	.08	136	.08*
SBT	2	3400	896	.26*	393	.12
SBR	1	1700	201	.12	108	.06
EBL	2	3400	108	.03	306	.09
EBT	3	5100	514	.10*	831	.16*
EBR	f		424		135	
WBL	2	3400	290	.09*	126	.04*
WBT	3	5100	594	.12	510	.10
WBR	d	1700	89	.05	82	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.53** **.57**

52. Jamboree at Main

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	392	.12*	301	.09
NBT	4	6800	1192	.18	2399	.35*
NBR	f		472		643	
SBL	2	3400	315	.09	210	.06*
SBT	4	6800	1984	.29*	1564	.23
SBR	1	1700	285	.17	200	.12
EBL	2	3400	95	.03	552	.16
EBT	3	5100	298	.06*	1212	.24*
EBR	f		210		686	
WBL	2	3400	525	.15*	517	.15*
WBT	3	5100	679	.13	417	.08
WBR	f		131		274	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION **.67** **.85**

53. Harvard at Main

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	116	.03*	90	.03
NBT	2	3400	261	.08	1198	.35*
NBR	1	1700	89	.05	245	.14
SBL	2	3400	35	.01	26	.01*
SBT	2	3400	1037	.31*	568	.17
SBR	1	1700	377	.22	124	.07
EBL	2	3400	101	.03	527	.16
EBT	3	5100	192	.04*	1262	.25*
EBR	d	1700	79	.05	204	.12
WBL	2	3400	329	.10*	102	.03*
WBT	3	5100	555	.11	174	.03
WBR	d	1700	17	.01	15	.01
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.53**		**.69**

54. Culver at Main

Existing 2014 Counts

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	85	.03*	150	.04
NBT	3	5100	1088	.21	1916	.38*
NBR	1	1700	158	.09	378	.22
SBL	2	3400	82	.02	143	.04*
SBT	3	5100	1992	.39*	1154	.23
SBR	f		372		124	
EBL	2	3400	105	.03	475	.14
EBT	2	3400	130	.04*	462	.14*
EBR	f		167		288	
WBL	2	3400	523	.15*	186	.05*
WBT	2	3400	304	.09	62	.02
WBR	1	1700	104	.06	69	.04
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.66**

APPENDIX

The Appendix contains the sheets for the ADT (24-hour) machine counts and the intersection peak hour counts. The ADT count sheets start on page A-4 for the roadway segments illustrated in Figure A-1, and the peak hour counts start on page A-131 for the intersections presented in Figure A-2. All sheets have been compiled according to link or intersection number which is shown in the upper right. Sources for the counts are City of Irvine, Caltrans and counts ordered by City of Tustin for the Specific Plan Amendment traffic analysis.

ROADWAY SEGMENT
AVERAGE DAILY TRAFFIC (ADT)
COUNTS

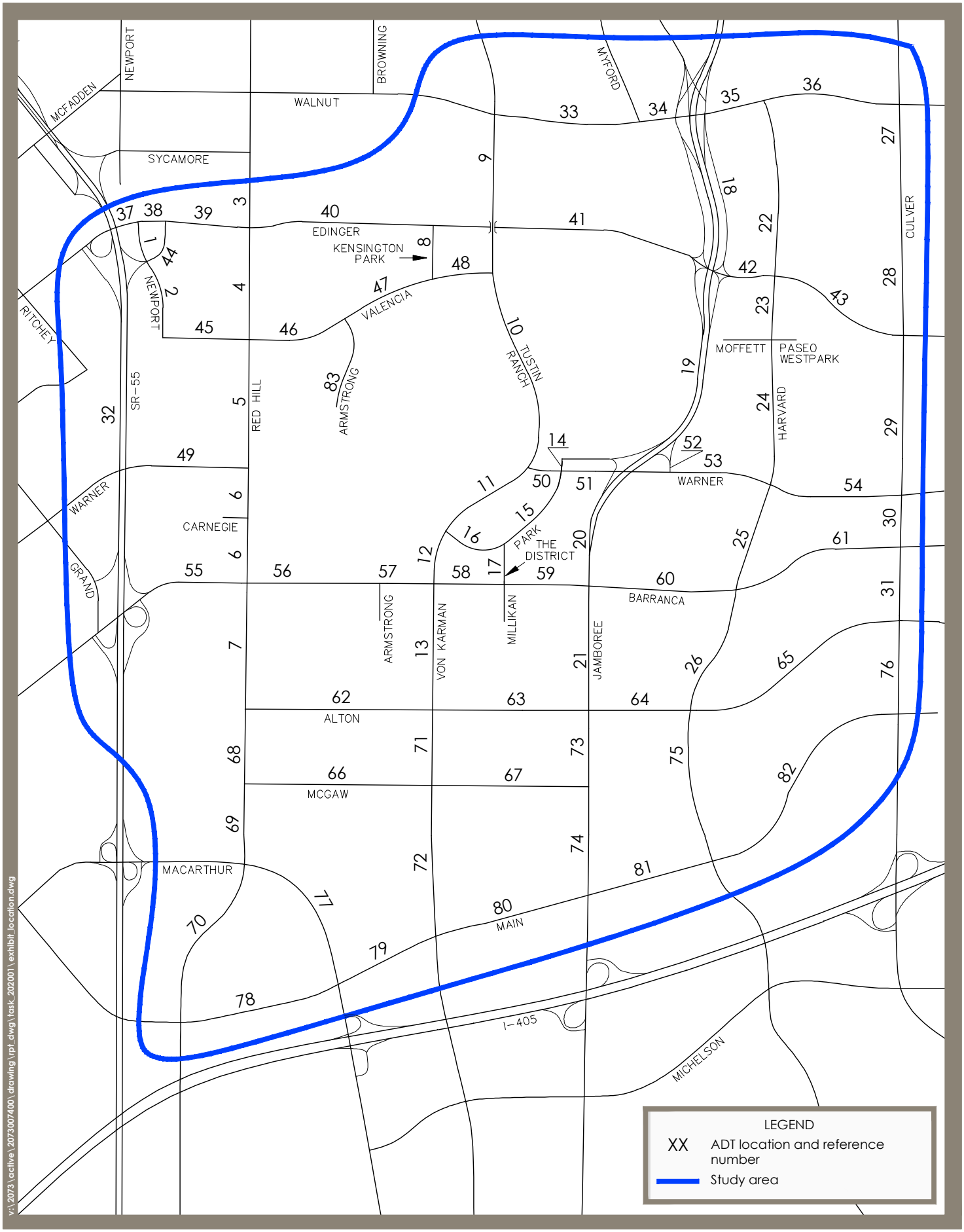

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Figure A-1

Existing Arterial Roadway Location Reference Map

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : NEWPORT AVENUE
Segment : EDINGER AVE TO SR-55 SB RAMPS
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	8	47	116	444	27	93	194	870	35	140	310	1,314
12:15	8		119		22		238		30		357	
12:30	26		96		24		212		50		308	
12:45	5		113		20		226		25		339	
01:00	5	25	93	367	15	53	228	904	20	78	321	1,271
01:15	7		100		10		228		17		328	
01:30	6		98		18		238		24		336	
01:45	7		76		10		210		17		286	
02:00	9	21	85	334	12	48	243	919	21	69	328	1,253
02:15	3		82		8		212		11		294	
02:30	4		106		14		216		18		322	
02:45	5		61		14		248		19		309	
03:00	53	225	58	323	20	94	214	796	73	319	272	1,119
03:15	128		55		14		222		142		277	
03:30	26		123		26		192		52		315	
03:45	18		87		34		168		52		255	
04:00	9	34	92	316	28	190	171	599	37	224	263	915
04:15	4		68		35		130		39		198	
04:30	5		90		63		130		68		220	
04:45	16		66		64		168		80		234	
05:00	13	117	110	310	82	648	144	527	95	765	254	837
05:15	18		72		138		108		156		180	
05:30	29		68		195		128		224		196	
05:45	57		60		233		147		290		207	
06:00	37	264	54	215	136	824	158	600	173	1,088	212	815
06:15	44		55		176		138		220		193	
06:30	65		54		225		176		290		230	
06:45	118		52		287		128		405		180	
07:00	82	366	52	189	218	1,129	144	546	300	1,495	196	735
07:15	105		43		324		134		429		177	
07:30	92		52		297		132		389		184	
07:45	87		42		290		136		377		178	
08:00	92	354	40	139	260	958	137	464	352	1,312	177	603
08:15	72		38		258		124		330		162	
08:30	96		30		228		102		324		132	
08:45	94		31		212		101		306		132	
09:00	86	358	26	104	222	857	101	345	308	1,215	127	449
09:15	102		23		226		96		328		119	
09:30	98		24		218		75		316		99	
09:45	72		31		191		73		263		104	
10:00	92	378	28	95	180	713	80	221	272	1,091	108	316
10:15	88		26		183		52		271		78	
10:30	92		20		196		52		288		72	
10:45	106		21		154		37		260		58	
11:00	110	425	8	52	194	753	28	103	304	1,178	36	155
11:15	108		22		174		23		282		45	
11:30	105		15		204		28		309		43	
11:45	102		7		181		24		283		31	
Totals	2,614		2,888		6,360		6,894		8,974		9,782	
Split%	29.1		29.5		70.9		70.5					
Day Totals		5,502				13,254				18,756		
Day Splits		29.3				70.7						
Peak Hour	10:45		12:00		07:15		12:45		07:15		12:15	
Volume	429		444		1,171		920		1,547		1,325	
Factor	0.98		0.93		0.90		0.97		0.90		0.93	

* Data File : D1405082

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : NEWPORT AVENUE
Segment : SR-55 SB RAMPS TO VALENCIA AVE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	3	93	70	262	3	7	58	249	6	100	128	511
12:15	11		70		2		66		13		136	
12:30	77		64		2		63		79		127	
12:45	2		58		0		62		2		120	
01:00	5	20	54	249	3	5	50	191	8	25	104	440
01:15	2		56		0		60		2		116	
01:30	10		69		0		41		10		110	
01:45	3		70		2		40		5		110	
02:00	1	7	98	476	0	6	42	138	1	13	140	614
02:15	2		76		1		36		3		112	
02:30	1		198		3		34		4		232	
02:45	3		104		2		26		5		130	
03:00	4	12	98	714	4	22	32	206	8	34	130	920
03:15	3		123		6		42		9		165	
03:30	2		324		2		76		4		400	
03:45	3		169		10		56		13		225	
04:00	8	13	207	826	7	48	28	93	15	61	235	919
04:15	3		199		6		18		9		217	
04:30	1		238		7		22		8		260	
04:45	1		182		28		25		29		207	
05:00	6	50	266	874	14	350	24	105	20	400	290	979
05:15	9		216		62		31		71		247	
05:30	17		218		122		24		139		242	
05:45	18		174		152		26		170		200	
06:00	19	115	182	564	59	385	23	64	78	500	205	628
06:15	18		190		68		16		86		206	
06:30	39		130		92		14		131		144	
06:45	39		62		166		11		205		73	
07:00	30	148	76	216	108	498	18	55	138	646	94	271
07:15	42		56		128		7		170		63	
07:30	40		58		128		12		168		70	
07:45	36		26		134		18		170		44	
08:00	53	242	22	89	121	433	11	51	174	675	33	140
08:15	50		20		118		14		168		34	
08:30	51		23		110		12		161		35	
08:45	88		24		84		14		172		38	
09:00	54	200	20	75	80	227	18	54	134	427	38	129
09:15	37		21		57		15		94		36	
09:30	68		18		40		10		108		28	
09:45	41		16		50		11		91		27	
10:00	51	173	20	47	40	142	7	26	91	315	27	73
10:15	30		10		34		8		64		18	
10:30	42		11		34		8		76		19	
10:45	50		6		34		3		84		9	
11:00	78	336	8	23	50	192	3	19	128	528	11	42
11:15	67		6		30		5		97		11	
11:30	103		4		63		3		166		7	
11:45	88		5		49		8		137		13	
Totals	1,409		4,415		2,315		1,251		3,724		5,666	
Split%	37.8		77.9		62.2		22.1					
Day Totals		5,824				3,566				9,390		
Day Splits		62.0				38.0						
Peak Hour	11:00		04:30		06:45		12:00		07:15		03:30	
Volume	336		902		530		249		682		1,077	
Factor	0.82		0.85		0.80		0.94		0.98		0.67	

Data File : D1405083

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : REDHILL AVENUE
Segment : N/O EDINGER AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	25	62	234	803	12	47	189	857	37	109	423	1,660
12:15	12		194		13		216		25		410	
12:30	17		187		12		226		29		413	
12:45	8		188		10		226		18		414	
01:00	15	30	212	824	8	34	190	790	23	64	402	1,614
01:15	4		177		10		185		14		362	
01:30	6		217		10		202		16		419	
01:45	5		218		6		213		11		431	
02:00	8	28	214	1,071	6	20	200	822	14	48	414	1,893
02:15	8		266		4		207		12		473	
02:30	7		288		4		200		11		488	
02:45	5		303		6		215		11		518	
03:00	29	99	288	1,412	3	46	196	727	32	145	484	2,139
03:15	31		345		4		192		35		537	
03:30	18		396		12		182		30		578	
03:45	21		383		27		157		48		540	
04:00	18	55	474	1,976	24	144	180	739	42	199	654	2,715
04:15	3		464		24		164		27		628	
04:30	19		536		32		200		51		736	
04:45	15		502		64		195		79		697	
05:00	13	108	512	2,214	34	394	169	683	47	502	681	2,897
05:15	31		630		64		178		95		808	
05:30	26		564		124		170		150		734	
05:45	38		508		172		166		210		674	
06:00	42	281	501	1,708	134	870	176	682	176	1,151	677	2,390
06:15	73		498		168		182		241		680	
06:30	80		385		232		156		312		541	
06:45	86		324		336		168		422		492	
07:00	113	589	249	774	290	1,586	154	559	403	2,175	403	1,333
07:15	146		203		378		163		524		366	
07:30	161		164		404		128		565		292	
07:45	169		158		514		114		683		272	
08:00	152	491	115	445	386	1,542	82	337	538	2,033	197	782
08:15	109		120		458		83		567		203	
08:30	122		107		364		90		486		197	
08:45	108		103		334		82		442		185	
09:00	112	479	68	322	310	988	63	238	422	1,467	131	560
09:15	125		98		256		58		381		156	
09:30	102		86		206		69		308		155	
09:45	140		70		216		48		356		118	
10:00	118	484	66	215	188	701	45	153	306	1,185	111	368
10:15	108		59		164		46		272		105	
10:30	120		55		184		34		304		89	
10:45	138		35		165		28		303		63	
11:00	141	650	56	154	167	663	32	84	308	1,313	88	238
11:15	145		36		157		16		302		52	
11:30	189		31		139		20		328		51	
11:45	175		31		200		16		375		47	
Totals	3,356		11,918		7,035		6,671		10,391		18,589	
Split%	32.3		64.1		67.7		35.9					
Day Totals		15,274				13,706				28,980		
Day Splits		52.7				47.3						
Peak Hour	11:00		05:00		07:30		12:15		07:30		04:30	
Volume	650		2,214		1,762		858		2,353		2,922	
Factor	0.86		0.88		0.86		0.95		0.86		0.90	

Data File : D1405090

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : REDHILL AVENUE
Segment : S/O EDINGER AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	22	64	232	798	8	34	168	806	30	98	400	1,604
12:15	14		200		8		202		22		402	
12:30	18		176		10		212		28		388	
12:45	10		190		8		224		18		414	
01:00	8	21	210	788	8	25	182	746	16	46	392	1,534
01:15	3		176		7		159		10		335	
01:30	6		188		6		197		12		385	
01:45	4		214		4		208		8		422	
02:00	8	24	204	1,046	5	19	186	698	13	43	390	1,744
02:15	8		232		4		183		12		415	
02:30	5		280		2		159		7		439	
02:45	3		330		8		170		11		500	
03:00	7	38	294	1,412	2	41	184	639	9	79	478	2,051
03:15	4		354		4		148		8		502	
03:30	16		384		5		166		21		550	
03:45	11		380		30		141		41		521	
04:00	10	41	394	1,649	22	141	134	586	32	182	528	2,235
04:15	3		421		24		142		27		563	
04:30	14		414		35		164		49		578	
04:45	14		420		60		146		74		566	
05:00	12	79	424	1,801	38	405	140	574	50	484	564	2,375
05:15	16		513		65		130		81		643	
05:30	24		440		134		152		158		592	
05:45	27		424		168		152		195		576	
06:00	44	221	436	1,513	110	714	124	483	154	935	560	1,996
06:15	42		470		166		137		208		607	
06:30	76		351		162		112		238		463	
06:45	59		256		276		110		335		366	
07:00	65	385	210	645	240	1,442	98	356	305	1,827	308	1,001
07:15	80		179		320		104		400		283	
07:30	114		144		376		78		490		222	
07:45	126		112		506		76		632		188	
08:00	114	369	83	382	372	1,495	60	235	486	1,864	143	617
08:15	67		106		444		65		511		171	
08:30	94		100		348		56		442		156	
08:45	94		93		331		54		425		147	
09:00	98	413	70	265	284	920	44	167	382	1,333	114	432
09:15	100		66		235		42		335		108	
09:30	94		68		201		46		295		114	
09:45	121		61		200		35		321		96	
10:00	93	419	52	164	160	626	33	107	253	1,045	85	271
10:15	94		43		150		19		244		62	
10:30	106		44		150		30		256		74	
10:45	126		25		166		25		292		50	
11:00	126	618	50	127	134	582	18	56	260	1,200	68	183
11:15	143		22		142		12		285		34	
11:30	187		29		139		17		326		46	
11:45	162		26		167		9		329		35	
Totals	2,692		10,590		6,444		5,453		9,136		16,043	
Split%	29.5		66.0		70.5		34.0					
Day Totals		13,282				11,897				25,179		
Day Splits		52.8				47.2						
Peak Hour	11:00		05:15		07:30		12:15		07:30		05:00	
Volume	618		1,813		1,698		820		2,119		2,375	
Factor	0.83		0.88		0.84		0.92		0.84		0.92	

* Data File : D1405089

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : REDHILL AVENUE
Segment : S/O VALENCIA AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	24	59	223	767	8	38	176	772	32	97	399	1,539
12:15	12		202		7		188		19		390	
12:30	13		170		16		199		29		369	
12:45	10		172		7		209		17		381	
01:00	6	22	210	809	6	23	180	670	12	45	390	1,479
01:15	4		166		6		152		10		318	
01:30	7		190		6		186		13		376	
01:45	5		243		5		152		10		395	
02:00	8	25	208	1,113	5	19	173	651	13	44	381	1,764
02:15	8		244		5		154		13		398	
02:30	6		321		3		170		9		491	
02:45	3		340		6		154		9		494	
03:00	9	31	342	1,573	1	39	174	671	10	70	516	2,244
03:15	3		368		6		150		9		518	
03:30	9		419		4		203		13		622	
03:45	10		444		28		144		38		588	
04:00	6	37	423	1,855	21	137	148	656	27	174	571	2,511
04:15	3		472		22		164		25		636	
04:30	13		474		38		188		51		662	
04:45	15		486		56		156		71		642	
05:00	17	103	516	2,138	29	330	191	696	46	433	707	2,834
05:15	19		586		57		157		76		743	
05:30	29		518		102		188		131		706	
05:45	38		518		142		160		180		678	
06:00	48	284	518	1,739	93	645	140	537	141	929	658	2,276
06:15	64		550		139		171		203		721	
06:30	88		364		164		126		252		490	
06:45	84		307		249		100		333		407	
07:00	84	440	229	665	236	1,332	112	375	320	1,772	341	1,040
07:15	102		176		292		104		394		280	
07:30	120		146		322		78		442		224	
07:45	134		114		482		81		616		195	
08:00	138	460	86	362	386	1,467	52	225	524	1,927	138	587
08:15	103		106		402		66		505		172	
08:30	102		84		356		59		458		143	
08:45	117		86		323		48		440		134	
09:00	98	403	78	266	274	852	43	162	372	1,255	121	428
09:15	97		67		204		41		301		108	
09:30	96		65		196		41		292		106	
09:45	112		56		178		37		290		93	
10:00	86	399	55	162	162	610	36	101	248	1,009	91	263
10:15	101		45		154		17		255		62	
10:30	98		38		140		23		238		61	
10:45	114		24		154		25		268		49	
11:00	126	614	36	108	133	595	20	54	259	1,209	56	162
11:15	136		22		140		10		276		32	
11:30	181		30		164		14		345		44	
11:45	171		20		158		10		329		30	
Totals	2,877		11,557		6,087		5,570		8,964		17,127	
Split%	32.1		67.5		67.9		32.5					
Day Totals		14,434				11,657				26,091		
Day Splits		55.3				44.7						
Peak Hour	11:00		05:15		07:45		12:15		07:45		05:00	
Volume	614		2,140		1,626		776		2,103		2,834	
Factor	0.85		0.91		0.84		0.93		0.85		0.95	

* Data File : D1405088

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : REDHILL AVENUE
Segment : N/O BARRANCA PARKWAY
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	18	45	243	887	10	39	240	922	28	84	483	1,809
12:15	8		199		10		208		18		407	
12:30	13		211		11		230		24		441	
12:45	6		234		8		244		14		478	
01:00	4	25	258	1,043	5	24	228	808	9	49	486	1,851
01:15	5		241		4		193		9		434	
01:30	9		268		10		199		19		467	
01:45	7		276		5		188		12		464	
02:00	21	40	272	1,356	3	24	172	712	24	64	444	2,068
02:15	6		295		5		169		11		464	
02:30	9		407		4		188		13		595	
02:45	4		382		12		183		16		565	
03:00	14	35	410	1,867	6	73	169	669	20	108	579	2,536
03:15	4		446		7		170		11		616	
03:30	9		485		14		178		23		663	
03:45	8		526		46		152		54		678	
04:00	8	36	466	2,094	27	206	174	759	35	242	640	2,853
04:15	4		575		37		177		41		752	
04:30	12		527		62		218		74		745	
04:45	12		526		80		190		92		716	
05:00	22	145	552	2,404	42	393	240	840	64	538	792	3,244
05:15	22		634		61		208		83		842	
05:30	50		626		128		214		178		840	
05:45	51		592		162		178		213		770	
06:00	72	282	608	1,866	108	674	169	585	180	956	777	2,451
06:15	46		558		152		178		198		736	
06:30	76		384		168		132		244		516	
06:45	88		316		246		106		334		422	
07:00	86	486	232	673	217	1,167	110	399	303	1,653	342	1,072
07:15	117		184		258		112		375		296	
07:30	118		151		273		92		391		243	
07:45	165		106		419		85		584		191	
08:00	152	545	93	368	334	1,252	68	266	486	1,797	161	634
08:15	134		108		338		68		472		176	
08:30	127		82		296		66		423		148	
08:45	132		85		284		64		416		149	
09:00	146	490	88	300	208	768	48	187	354	1,258	136	487
09:15	106		80		202		54		308		134	
09:30	120		72		178		48		298		120	
09:45	118		60		180		37		298		97	
10:00	116	472	82	214	152	632	31	105	268	1,104	113	319
10:15	106		49		176		17		282		66	
10:30	126		50		132		25		258		75	
10:45	124		33		172		32		296		65	
11:00	138	622	45	154	179	768	19	62	317	1,390	64	216
11:15	136		34		169		11		305		45	
11:30	178		44		228		19		406		63	
11:45	170		31		192		13		362		44	
Totals	3,223		13,226		6,020		6,314		9,243		19,540	
Split%	34.9		67.7		65.1		32.3					
Day Totals		16,449				12,334				28,783		
Day Splits		57.1				42.9						
Peak Hour	11:00		05:15		07:45		12:00		07:45		05:00	
Volume	622		2,460		1,387		922		1,965		3,244	
Factor	0.87		0.97		0.83		0.94		0.84		0.96	

* Data File : D1405087

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Redhill Avenue
B/ Deere Avenue - Barranca Parkway / Dyer Road

File Name 272
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
4/16/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	8	236			2	214				
12:15	14	195			7	197				
12:30	20	303			9	175				
12:45	8	247	50	981	8	171	26	757	76	1738
1:00	13	292			7	144				
1:15	14	303			3	163				
1:30	7	489			8	171				
1:45	7	321	41	1405	9	154	27	632	68	2037
2:00	8	485			5	125				
2:15	7	363			13	134				
2:30	11	566			28	118				
2:45	10	415	36	1829	24	143	70	520	106	2349
3:00	8	576			39	147				
3:15	14	448			38	116				
3:30	18	617			90	131				
3:45	12	576	52	2217	93	147	260	541	312	2758
4:00	24	672			71	200				
4:15	20	532			80	156				
4:30	30	636			137	181				
4:45	46	629	120	2469	190	133	478	670	598	3139
5:00	99	643			135	116				
5:15	51	571			140	113				
5:30	62	433			158	112				
5:45	69	301	281	1948	250	113	683	454	964	2402
6:00	73	246			234	77				
6:15	100	163			273	74				
6:30	108	105			350	65				
6:45	139	202	420	716	392	66	1249	282	1669	998
7:00	137	102			323	56				
7:15	152	102			365	53				
7:30	140	82			317	51				
7:45	133	52	562	338	331	51	1336	211	1898	549
8:00	119	110			220	48				
8:15	101	71			199	27				
8:30	142	56			159	35				
8:45	120	51	482	288	168	30	746	140	1228	428
9:00	126	96			138	31				
9:15	103	48			126	32				
9:30	132	61			135	29				
9:45	119	30	480	235	108	17	507	109	987	344
10:00	162	37			127	16				
10:15	181	34			131	9				
10:30	233	51			169	8				
10:45	193	29	769	151	169	9	596	42	1365	193
11:00	239	28			185	13				
11:15	232	17			176	8				
11:30	219	24			194	5				
11:45	201	7	891	76	221	6	776	32	1667	108
Totals	4184	12653			6754	4390				
Combined Totals		16837				11144				
ADT										27981
AM Peak Hour	1030	AM			630	AM				
Volume	897				1430					
P.H.F.	0.938				0.912					
PM Peak Hour		430	PM			1200	PM			
Volume		2479				757				
P.H.F.		0.964				0.884				
Percentage	24.9%	75.1%			60.6%	39.4%				

Phone: 951-268-6268 counts@countsunlimited.com Phone: 951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

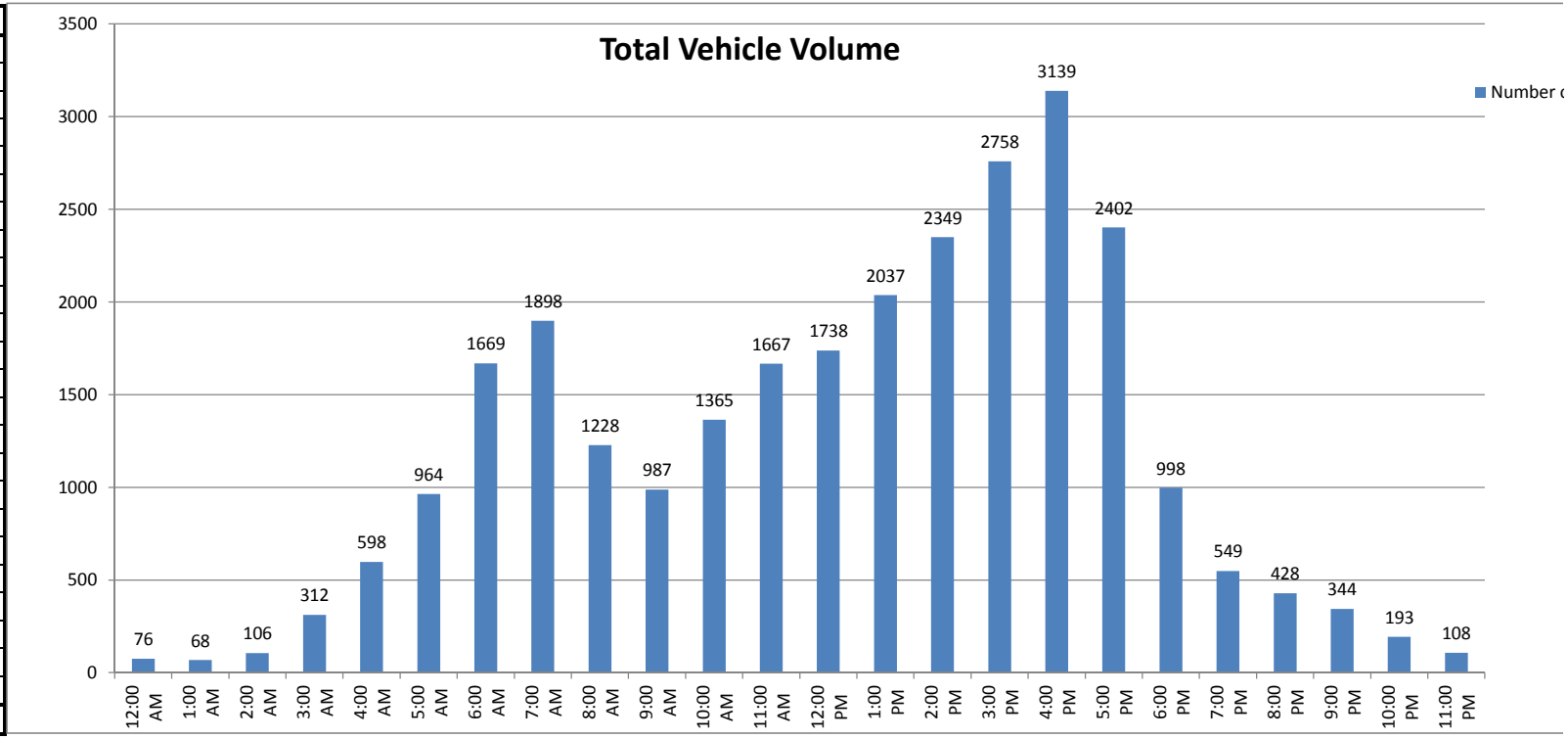
Redhill Avenue

B/ Deere Avenue - Barranca Parkway / Dyer Road

4/16/2014

Southbound

Start Time	4/16/2014
12:00 AM	76
1:00 AM	68
2:00 AM	106
3:00 AM	312
4:00 AM	598
5:00 AM	964
6:00 AM	1669
7:00 AM	1898
8:00 AM	1228
9:00 AM	987
10:00 AM	1365
11:00 AM	1667
12:00 PM	1738
1:00 PM	2037
2:00 PM	2349
3:00 PM	2758
4:00 PM	3139
5:00 PM	2402
6:00 PM	998
7:00 PM	549
8:00 PM	428
9:00 PM	344
10:00 PM	193
11:00 PM	108
Total	27981



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Phone: 951-268-6268

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : KENSINGTON PARK DRIVE
Segment : S/O EDINGER AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	1	9	18	103	2	12	32	119	3	21	50	222
12:15	1		32		6		32		7		64	
12:30	1		21		2		33		3		54	
12:45	6		32		2		22		8		54	
01:00	0	1	28	109	4	6	26	108	4	7	54	217
01:15	1		23		1		30		2		53	
01:30	0		32		1		28		1		60	
01:45	0		26		0		24		0		50	
02:00	0	2	32	125	0	2	29	135	0	4	61	260
02:15	0		41		1		26		1		67	
02:30	1		24		0		37		1		61	
02:45	1		28		1		43		2		71	
03:00	0	4	39	144	1	7	38	169	1	11	77	313
03:15	2		39		1		46		3		85	
03:30	0		40		2		44		2		84	
03:45	2		26		3		41		5		67	
04:00	4	14	44	184	2	11	34	174	6	25	78	358
04:15	2		42		3		49		5		91	
04:30	3		43		2		50		5		93	
04:45	5		55		4		41		9		96	
05:00	3	25	60	220	1	22	82	282	4	47	142	502
05:15	5		56		4		64		9		120	
05:30	6		60		3		76		9		136	
05:45	11		44		14		60		25		104	
06:00	15	88	54	163	15	77	50	237	30	165	104	400
06:15	21		53		14		64		35		117	
06:30	34		37		22		58		56		95	
06:45	18		19		26		65		44		84	
07:00	31	177	23	81	23	119	42	160	54	296	65	241
07:15	52		24		32		38		84		62	
07:30	51		12		20		50		71		62	
07:45	43		22		44		30		87		52	
08:00	66	181	22	68	43	151	37	119	109	332	59	187
08:15	30		17		44		36		74		53	
08:30	35		12		29		26		64		38	
08:45	50		17		35		20		85		37	
09:00	38	109	17	52	27	90	23	88	65	199	40	140
09:15	23		15		19		26		42		41	
09:30	24		9		26		26		50		35	
09:45	24		11		18		13		42		24	
10:00	23	85	11	34	18	98	13	60	41	183	24	94
10:15	21		9		25		24		46		33	
10:30	15		8		30		12		45		20	
10:45	26		6		25		11		51		17	
11:00	26	109	5	13	20	112	8	30	46	221	13	43
11:15	22		0		22		2		44		2	
11:30	36		6		36		6		72		12	
11:45	25		2		34		14		59		16	
Totals	804		1,296		707		1,681		1,511		2,977	
Split%	53.2		43.5		46.8		56.5					
Day Totals		2,100				2,388				4,488		
Day Splits		46.8				53.2						
Peak Hour	07:15		04:45		07:45		05:00		07:15		05:00	
Volume	212		231		160		282		351		502	
Factor	0.80		0.96		0.91		0.86		0.81		0.88	

* Data File : D1405081

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : TUSTIN RANCH ROAD
Segment : 500' S/O WALNUT AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 04/29/14

Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	9	28	116	438	4	16	100	411	13	44	216	849
12:15	9		92		6		94		15		186	
12:30	4		112		3		116		7		228	
12:45	6		118		3		101		9		219	
01:00	3	8	119	484	2	5	120	406	5	13	239	890
01:15	1		111		0		98		1		209	
01:30	3		126		2		92		5		218	
01:45	1		128		1		96		2		224	
02:00	4	9	130	557	0	7	70	331	4	16	200	888
02:15	2		126		2		84		4		210	
02:30	1		163		0		83		1		246	
02:45	2		138		5		94		7		232	
03:00	1	2	163	697	0	18	104	422	1	20	267	1,119
03:15	1		150		3		98		4		248	
03:30	0		174		5		115		5		289	
03:45	0		210		10		105		10		315	
04:00	3	13	236	1,188	9	54	83	384	12	67	319	1,572
04:15	4		296		5		94		9		390	
04:30	1		293		10		112		11		405	
04:45	5		363		30		95		35		458	
05:00	6	34	438	1,710	22	190	108	484	28	224	546	2,194
05:15	9		453		34		120		43		573	
05:30	12		423		55		128		67		551	
05:45	7		396		79		128		86		524	
06:00	18	132	372	1,167	104	502	116	394	122	634	488	1,561
06:15	22		312		108		100		130		412	
06:30	32		250		116		100		148		350	
06:45	60		233		174		78		234		311	
07:00	42	247	158	495	154	1,055	74	268	196	1,302	232	763
07:15	60		122		222		82		282		204	
07:30	70		121		289		60		359		181	
07:45	75		94		390		52		465		146	
08:00	78	288	82	296	332	1,193	48	174	410	1,481	130	470
08:15	88		81		346		54		434		135	
08:30	60		80		296		42		356		122	
08:45	62		53		219		30		281		83	
09:00	60	220	74	218	200	609	39	130	260	829	113	348
09:15	50		42		138		32		188		74	
09:30	62		50		131		30		193		80	
09:45	48		52		140		29		188		81	
10:00	62	269	48	134	109	394	22	67	171	663	70	201
10:15	62		28		106		14		168		42	
10:30	61		34		80		15		141		49	
10:45	84		24		99		16		183		40	
11:00	65	343	34	96	90	351	15	43	155	694	49	139
11:15	80		25		82		13		162		38	
11:30	114		25		93		9		207		34	
11:45	84		12		86		6		170		18	
Totals	1,593		7,480		4,394		3,514		5,987		10,994	
Split%	26.6		68.0		73.4		32.0					
Day Totals		9,073				7,908				16,981		
Day Splits		53.4				46.6						
Peak Hour	10:45		05:00		07:45		05:15		07:30		05:00	
Volume	343		1,710		1,364		492		1,668		2,194	
Factor	0.75		0.94		0.87		0.96		0.90		0.96	

Data File : D1405009

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

Location: : TUSTIN RANCH ROAD
Segment: : S/O VALENCIA AVENUE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 04/29/14

Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	12	34	118	463	4	18	126	447	16	52	244	910
12:15	11		119		4		106		15		225	
12:30	5		102		6		122		11		224	
12:45	6		124		4		93		10		217	
01:00	3	16	124	498	1	7	109	401	4	23	233	899
01:15	7		102		2		99		9		201	
01:30	4		134		1		96		5		230	
01:45	2		138		3		97		5		235	
02:00	3	8	132	546	1	7	70	353	4	15	202	899
02:15	1		142		1		94		2		236	
02:30	2		128		2		97		4		225	
02:45	2		144		3		92		5		236	
03:00	1	7	128	665	0	20	100	394	1	27	228	1,059
03:15	1		171		3		108		4		279	
03:30	2		160		4		82		6		242	
03:45	3		206		13		104		16		310	
04:00	2	10	243	1,063	6	60	92	400	8	70	335	1,463
04:15	2		257		12		101		14		358	
04:30	2		264		8		101		10		365	
04:45	4		299		34		106		38		405	
05:00	2	16	339	1,503	28	201	98	430	30	217	437	1,933
05:15	4		385		38		114		42		499	
05:30	4		387		64		114		68		501	
05:45	6		392		71		104		77		496	
06:00	22	100	334	1,073	90	461	88	369	112	561	422	1,442
06:15	14		297		100		92		114		389	
06:30	24		258		142		92		166		350	
06:45	40		184		129		97		169		281	
07:00	42	173	162	520	172	977	89	289	214	1,150	251	809
07:15	38		126		236		74		274		200	
07:30	49		116		250		65		299		181	
07:45	44		116		319		61		363		177	
08:00	60	228	114	347	293	1,066	35	153	353	1,294	149	500
08:15	48		75		292		51		340		126	
08:30	72		92		251		40		323		132	
08:45	48		66		230		27		278		93	
09:00	60	244	71	232	174	553	36	115	234	797	107	347
09:15	70		67		128		35		198		102	
09:30	63		55		136		26		199		81	
09:45	51		39		115		18		166		57	
10:00	46	233	30	126	111	429	19	57	157	662	49	183
10:15	50		31		109		15		159		46	
10:30	73		38		114		17		187		55	
10:45	64		27		95		6		159		33	
11:00	68	309	32	82	106	421	7	29	174	730	39	111
11:15	88		21		96		8		184		29	
11:30	78		19		116		10		194		29	
11:45	75		10		103		4		178		14	
Totals	1,378		7,118		4,220		3,437		5,598		10,555	
Split%	24.6		67.4		75.4		32.6					
Day Totals		8,496				7,657				16,153		
Day Splits		52.6				47.4						
Peak Hour	11:00		05:00		07:45		12:00		07:45		05:00	
Volume	309		1,503		1,155		447		1,379		1,933	
Factor	0.88		0.96		0.91		0.89		0.95		0.96	

Data File : D1405010

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : TUSTIN RANCH ROAD
Segment : PARK AVE TO BARRANCA PKWY
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 04/29/14

Day: Tuesday

Interval	SB				NB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	3	16	158	851	10	18	251	895	13	34	409	1,746
12:15	5		201		4		228		9		429	
12:30	6		242		2		226		8		468	
12:45	2		250		2		190		4		440	
01:00	5	8	262	933	1	4	198	699	6	12	460	1,632
01:15	1		245		1		180		2		425	
01:30	1		216		2		182		3		398	
01:45	1		210		0		139		1		349	
02:00	1	5	165	619	2	10	125	606	3	15	290	1,225
02:15	1		176		2		142		3		318	
02:30	2		124		4		176		6		300	
02:45	1		154		2		163		3		317	
03:00	0	9	158	571	1	7	161	735	1	16	319	1,306
03:15	4		102		0		195		4		297	
03:30	1		153		0		169		1		322	
03:45	4		158		6		210		10		368	
04:00	4	27	120	514	6	26	236	1,178	10	53	356	1,692
04:15	3		134		2		299		5		433	
04:30	6		132		6		313		12		445	
04:45	14		128		12		330		26		458	
05:00	17	126	118	544	4	40	414	1,571	21	166	532	2,115
05:15	30		118		4		386		34		504	
05:30	29		154		6		398		35		552	
05:45	50		154		26		373		76		527	
06:00	64	383	119	470	18	128	309	1,052	82	511	428	1,522
06:15	68		127		42		308		110		435	
06:30	95		112		32		243		127		355	
06:45	156		112		36		192		192		304	
07:00	171	1,150	116	439	19	134	174	529	190	1,284	290	968
07:15	250		108		34		150		284		258	
07:30	303		100		42		106		345		206	
07:45	426		115		39		99		465		214	
08:00	504	1,626	86	385	44	201	86	273	548	1,827	172	658
08:15	460		116		52		84		512		200	
08:30	372		93		55		53		427		146	
08:45	290		90		50		50		340		140	
09:00	229	679	68	210	48	245	53	147	277	924	121	357
09:15	148		50		66		45		214		95	
09:30	160		52		56		25		216		77	
09:45	142		40		75		24		217		64	
10:00	109	434	38	109	82	369	22	71	191	803	60	180
10:15	125		30		82		22		207		52	
10:30	96		26		103		15		199		41	
10:45	104		15		102		12		206		27	
11:00	112	525	17	62	149	734	9	56	261	1,259	26	118
11:15	116		16		170		12		286		28	
11:30	150		16		198		23		348		39	
11:45	147		13		217		12		364		25	
Totals	4,988		5,707		1,916		7,812		6,904		13,519	
Split%	72.2		42.2		27.8		57.8					
Day Totals		10,695				9,728				20,423		
Day Splits		52.4				47.6						
Peak Hour	07:45		12:30		11:00		05:00		07:45		05:00	
Volume	1,762		999		734		1,571		1,952		2,115	
Factor	0.87		0.95		0.85		0.95		0.89		0.96	

* Data File : D1405013

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Von Karman Avenue
B/ Alton Parkway - Barranca Parkway

File Name 312
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/6/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	13	217			10	169				
12:15	8	212			6	223				
12:30	13	237			4	267				
12:45	8	200	42	866	2	292	22	951	64	1817
1:00	15	216			4	255				
1:15	7	187			2	251				
1:30	8	198			7	252				
1:45	5	181	35	782	2	217	15	975	50	1757
2:00	8	201			3	164				
2:15	4	199			6	203				
2:30	7	297			4	198				
2:45	3	200	22	897	6	188	19	753	41	1650
3:00	5	256			3	159				
3:15	7	221			4	157				
3:30	8	330			13	167				
3:45	14	281	34	1088	21	160	41	643	75	1731
4:00	11	371			17	153				
4:15	13	360			18	157				
4:30	26	441			34	151				
4:45	44	422	94	1594	77	138	146	599	240	2193
5:00	27	475			47	135				
5:15	25	402			60	178				
5:30	43	418			96	142				
5:45	78	410	173	1705	166	129	369	584	542	2289
6:00	53	397			95	117				
6:15	61	333			108	94				
6:30	74	310			161	114				
6:45	92	261	280	1301	269	120	633	445	913	1746
7:00	114	214			280	117				
7:15	99	173			366	107				
7:30	112	132			472	72				
7:45	112	110	437	629	553	77	1671	373	2108	1002
8:00	104	86			535	60				
8:15	117	98			493	73				
8:30	116	83			447	52				
8:45	113	78	450	345	447	59	1922	244	2372	589
9:00	106	69			287	61				
9:15	89	54			244	53				
9:30	104	63			193	35				
9:45	106	75	405	261	201	39	925	188	1330	449
10:00	106	48			152	37				
10:15	113	42			127	34				
10:30	114	45			127	29				
10:45	110	24	443	159	108	21	514	121	957	280
11:00	190	36			142	24				
11:15	191	15			140	13				
11:30	225	28			155	21				
11:45	239	19	845	98	193	14	630	72	1475	170
Totals	3260	9725			6907	5948				
Combined Totals		12985				12855				
ADT										25840
AM Peak Hour	1100	AM			730	AM				
Volume	845				2053					
P.H.F.	0.884				0.928					
PM Peak Hour		430	PM			1230	PM			
Volume		1740				1065				
P.H.F.		0.916				0.912				
Percentage	25.1%	74.9%			53.7%	46.3%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

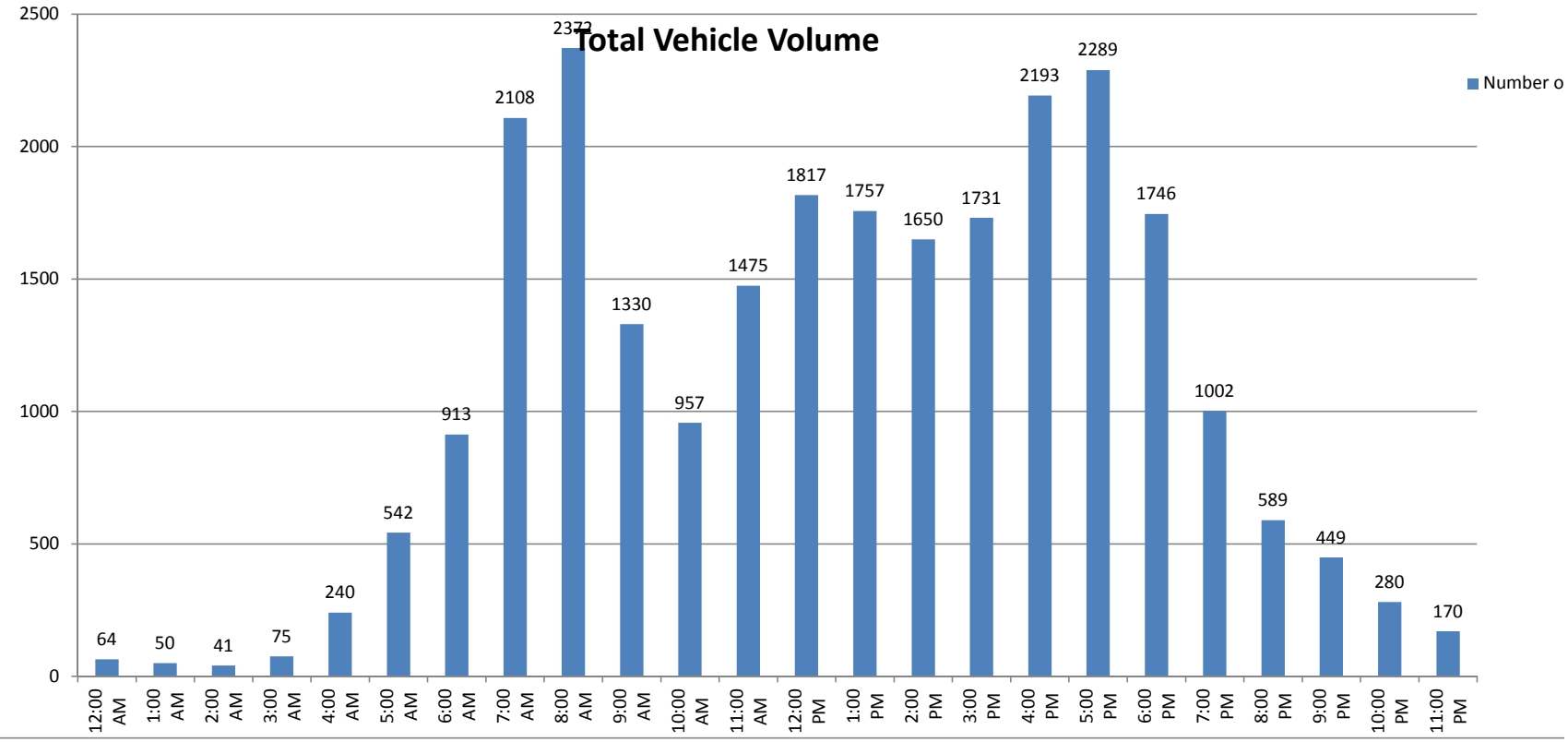
24 Hour Volume Plot

Von Karman Avenue
B/ Alton Parkway - Barranca Parkway

3/6/2014

Southbound

Start Time	3/6/2014
12:00 AM	64
1:00 AM	50
2:00 AM	41
3:00 AM	75
4:00 AM	240
5:00 AM	542
6:00 AM	913
7:00 AM	2108
8:00 AM	2372
9:00 AM	1330
10:00 AM	957
11:00 AM	1475
12:00 PM	1817
1:00 PM	1757
2:00 PM	1650
3:00 PM	1731
4:00 PM	2193
5:00 PM	2289
6:00 PM	1746
7:00 PM	1002
8:00 PM	589
9:00 PM	449
10:00 PM	280
11:00 PM	170
Total	25840



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Fax: 951-268-6267

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location: : PARK AVENUE
Segment: : N/O WARNER AVENUE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 06/05/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	3	4	32	107	10	36	176	658	13	40	208	765
12:15	0		28		14		158		14		186	
12:30	0		17		10		152		10		169	
12:45	1		30		2		172		3		202	
01:00	1	1	32	104	8	52	170	684	9	53	202	788
01:15	0		21		22		192		22		213	
01:30	0		30		14		176		14		206	
01:45	0		21		8		146		8		167	
02:00	0	0	22	90	8	45	156	656	8	45	178	746
02:15	0		27		12		152		12		179	
02:30	0		20		6		172		6		192	
02:45	0		21		19		176		19		197	
03:00	0	1	17	51	6	54	174	721	6	55	191	772
03:15	0		16		12		176		12		192	
03:30	1		10		14		180		15		190	
03:45	0		8		22		191		22		199	
04:00	1	1	19	66	27	154	145	670	28	155	164	736
04:15	0		23		31		172		31		195	
04:30	0		12		54		168		54		180	
04:45	0		12		42		185		42		197	
05:00	1	12	26	67	64	324	189	715	65	336	215	782
05:15	2		13		54		148		56		161	
05:30	5		14		98		204		103		218	
05:45	4		14		108		174		112		188	
06:00	13	66	12	57	99	417	152	581	112	483	164	638
06:15	19		20		112		159		131		179	
06:30	18		10		100		132		118		142	
06:45	16		15		106		138		122		153	
07:00	12	50	9	50	131	722	102	426	143	772	111	476
07:15	12		16		164		111		176		127	
07:30	12		12		176		98		188		110	
07:45	14		13		251		115		265		128	
08:00	12	49	12	53	246	899	98	333	258	948	110	386
08:15	10		11		244		92		254		103	
08:30	16		17		201		71		217		88	
08:45	11		13		208		72		219		85	
09:00	10	43	10	27	133	623	43	174	143	666	53	201
09:15	5		8		156		58		161		66	
09:30	16		7		158		44		174		51	
09:45	12		2		176		29		188		31	
10:00	14	77	3	7	150	674	40	115	164	751	43	122
10:15	25		1		170		27		195		28	
10:30	18		1		178		32		196		33	
10:45	20		2		176		16		196		18	
11:00	20	85	1	6	196	752	16	53	216	837	17	59
11:15	18		0		180		12		198		12	
11:30	21		3		182		14		203		17	
11:45	26		2		194		11		220		13	
Totals	389		685		4,752		5,786		5,141		6,471	
Split%	7.6		10.6		92.4		89.4					
Day Totals		1,074				10,538				11,612		
Day Splits		9.2				90.8						
Peak Hour	11:00		12:45		07:45		04:45		07:45		12:45	
Volume	85		113		942		726		994		823	
Factor	0.82		0.88		0.94		0.89		0.94		0.97	

* Data File : D1405086

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location: : PARK AVENUE
Segment: : S/O WARNER AVENUE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 06/05/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	6	35	148	588	2	11	173	632	8	46	321	1,220
12:15	12		140		7		166		19		306	
12:30	10		138		0		150		10		288	
12:45	7		162		2		143		9		305	
01:00	5	17	171	642	1	6	138	569	6	23	309	1,211
01:15	1		151		0		170		1		321	
01:30	7		170		4		127		11		297	
01:45	4		150		1		134		5		284	
02:00	0	0	166	600	0	9	109	488	0	9	275	1,088
02:15	0		144		0		128		0		272	
02:30	0		146		1		121		1		267	
02:45	0		144		8		130		8		274	
03:00	0	3	100	430	3	13	119	509	3	16	219	939
03:15	0		108		1		123		1		231	
03:30	2		104		0		121		2		225	
03:45	1		118		9		146		10		264	
04:00	2	14	120	495	5	63	125	489	7	77	245	984
04:15	0		134		12		113		12		247	
04:30	4		122		22		115		26		237	
04:45	8		119		24		136		32		255	
05:00	6	17	138	547	12	57	110	541	18	74	248	1,088
05:15	6		140		9		127		15		267	
05:30	1		133		6		162		7		295	
05:45	4		136		30		142		34		278	
06:00	23	113	163	581	32	180	136	517	55	293	299	1,098
06:15	26		140		48		137		74		277	
06:30	28		151		46		136		74		287	
06:45	36		127		54		108		90		235	
07:00	27	122	132	552	63	276	126	497	90	398	258	1,049
07:15	29		132		58		133		87		265	
07:30	28		132		74		119		102		251	
07:45	38		156		81		119		119		275	
08:00	52	198	129	541	102	352	102	316	154	550	231	857
08:15	64		144		90		90		154		234	
08:30	39		132		84		64		123		196	
08:45	43		136		76		60		119		196	
09:00	44	198	119	347	71	429	48	146	115	627	167	493
09:15	38		104		102		52		140		156	
09:30	53		79		102		30		155		109	
09:45	63		45		154		16		217		61	
10:00	71	309	46	160	146	561	18	43	217	870	64	203
10:15	82		27		134		8		216		35	
10:30	72		39		142		10		214		49	
10:45	84		48		139		7		223		55	
11:00	96	403	36	109	177	687	8	20	273	1,090	44	129
11:15	82		13		142		5		224		18	
11:30	90		46		196		2		286		48	
11:45	135		14		172		5		307		19	
Totals	1,429		5,592		2,644		4,767		4,073		10,359	
Split%	35.1		54.0		64.9		46.0					
Day Totals		7,021				7,411				14,432		
Day Splits		48.6				51.4						
Peak Hour	11:00		12:45		11:00		12:00		11:00		12:45	
Volume	403		654		687		632		1,090		1,232	
Factor	0.75		0.96		0.88		0.91		0.89		0.96	

* Data File : D1405085

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

Location : PARK AVENUE
Segment : S/O TUSTIN RANCH ROAD
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Interval	NB				SB				Combined				Day: Thursday
Begin	AM		PM		AM		PM		AM		PM		
12:00	7	30	122	675	2	4	172	566	9	34	294	1,241	
12:15	6		160		1		146		7		306		
12:30	4		166		0		137		4		303		
12:45	13		227		1		111		14		338		
01:00	1	10	190	681	1	3	112	418	2	13	302	1,099	
01:15	1		182		2		120		3		302		
01:30	6		160		0		104		6		264		
01:45	2		149		0		82		2		231		
02:00	0	2	142	477	0	1	98	327	0	3	240	804	
02:15	2		126		0		66		2		192		
02:30	0		104		0		85		0		189		
02:45	0		105		1		78		1		183		
03:00	2	3	90	341	1	19	99	313	3	22	189	654	
03:15	1		84		2		81		3		165		
03:30	0		79		9		70		9		149		
03:45	0		88		7		63		7		151		
04:00	0	3	89	350	2	16	96	376	2	19	185	726	
04:15	1		107		3		84		4		191		
04:30	1		84		2		83		3		167		
04:45	1		70		9		113		10		183		
05:00	0	7	80	365	0	16	106	450	0	23	186	815	
05:15	0		90		4		110		4		200		
05:30	6		104		4		104		10		208		
05:45	1		91		8		130		9		221		
06:00	10	40	87	386	8	43	134	465	18	83	221	851	
06:15	9		105		8		136		17		241		
06:30	4		97		12		107		16		204		
06:45	17		97		15		88		32		185		
07:00	10	65	98	453	10	68	75	278	20	133	173	731	
07:15	16		124		13		66		29		190		
07:30	20		123		22		76		42		199		
07:45	19		108		23		61		42		169		
08:00	24	100	97	424	34	138	66	200	58	238	163	624	
08:15	22		98		41		59		63		157		
08:30	30		124		26		36		56		160		
08:45	24		105		37		39		61		144		
09:00	25	155	73	266	43	202	25	71	68	357	98	337	
09:15	35		87		45		21		80		108		
09:30	50		60		51		14		101		74		
09:45	45		46		63		11		108		57		
10:00	34	212	44	130	54	246	6	18	88	458	50	148	
10:15	54		42		62		5		116		47		
10:30	56		33		54		3		110		36		
10:45	68		11		76		4		144		15		
11:00	50	349	21	101	100	564	2	12	150	913	23	113	
11:15	83		22		126		2		209		24		
11:30	100		31		150		3		250		34		
11:45	116		27		188		5		304		32		
Totals	976		4,649		1,320		3,494		2,296		8,143		
Split%	42.5		57.1		57.5		42.9						
Day Totals		5,625				4,814				10,439			
Day Splits		53.9				46.1							
Peak Hour	11:00		12:30		11:00		12:00		11:00		12:15		
Volume	349		765		564		566		913		1,249		
Factor	0.75		0.84		0.75		0.82		0.75		0.92		

* Data File : D1405084

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

Location : DISTRICT DRIVE
Segment : N/O BARRANCA PARKWAY
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	5	25	325	1,181	32	77	202	897	37	102	527	2,078
12:15	8		328		13		207		21		535	
12:30	9		257		20		244		29		501	
12:45	3		271		12		244		15		515	
01:00	2	9	246	911	5	22	232	889	7	31	478	1,800
01:15	2		260		3		228		5		488	
01:30	2		192		12		221		14		413	
01:45	3		213		2		208		5		421	
02:00	1	8	194	731	4	9	190	745	5	17	384	1,476
02:15	1		178		3		185		4		363	
02:30	5		186		0		200		5		386	
02:45	1		173		2		170		3		343	
03:00	3	7	162	716	4	6	185	656	7	13	347	1,372
03:15	1		166		0		154		1		320	
03:30	1		188		0		168		1		356	
03:45	2		200		2		149		4		349	
04:00	1	26	166	710	2	10	152	548	3	36	318	1,258
04:15	1		176		2		136		3		312	
04:30	5		172		3		136		8		308	
04:45	19		196		3		124		22		320	
05:00	6	53	190	816	2	17	146	571	8	70	336	1,387
05:15	10		202		4		151		14		353	
05:30	11		208		3		132		14		340	
05:45	26		216		8		142		34		358	
06:00	18	88	252	835	18	97	146	604	36	185	398	1,439
06:15	20		236		22		149		42		385	
06:30	18		179		30		162		48		341	
06:45	32		168		27		147		59		315	
07:00	39	162	194	700	44	209	168	627	83	371	362	1,327
07:15	32		190		59		151		91		341	
07:30	44		162		50		150		94		312	
07:45	47		154		56		158		103		312	
08:00	52	276	125	486	61	263	182	659	113	539	307	1,145
08:15	84		132		67		164		151		296	
08:30	70		122		77		162		147		284	
08:45	70		107		58		151		128		258	
09:00	72	404	86	266	68	276	161	465	140	680	247	731
09:15	96		70		78		132		174		202	
09:30	104		57		60		78		164		135	
09:45	132		53		70		94		202		147	
10:00	133	646	21	84	64	415	86	260	197	1,061	107	344
10:15	150		26		103		64		253		90	
10:30	174		21		94		50		268		71	
10:45	189		16		154		60		343		76	
11:00	198	977	16	52	138	633	57	139	336	1,610	73	191
11:15	215		14		172		28		387		42	
11:30	266		10		153		32		419		42	
11:45	298		12		170		22		468		34	
Totals	2,681		7,488		2,034		7,060		4,715		14,548	
Split%	56.9		51.5		43.1		48.5					
Day Totals		10,169				9,094				19,263		
Day Splits		52.8				47.2						
Peak Hour	11:00		12:00		11:00		12:30		11:00		12:00	
Volume	977		1,181		633		948		1,610		2,078	
Factor	0.82		0.90		0.92		0.97		0.86		0.97	

* Data File : D1405065

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location: : JAMBOREE ROAD
Segment: : EDINGER AVE TO WALNUT AVE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 06/05/14

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	62	231	448	1,808	44	151	454	1,779	106	382	902	3,587
12:15	60		424		43		442		103		866	
12:30	56		437		38		411		94		848	
12:45	53		499		26		472		79		971	
01:00	35	111	530	2,105	26	103	364	1,621	61	214	894	3,726
01:15	13		477		23		416		36		893	
01:30	27		522		36		450		63		972	
01:45	36		576		18		391		54		967	
02:00	16	75	539	2,404	14	73	427	1,657	30	148	966	4,061
02:15	26		588		20		386		46		974	
02:30	20		621		8		400		28		1,021	
02:45	13		656		31		444		44		1,100	
03:00	23	73	625	2,934	17	104	387	1,621	40	177	1,012	4,555
03:15	20		714		24		420		44		1,134	
03:30	16		751		23		376		39		1,127	
03:45	14		844		40		438		54		1,282	
04:00	18	118	888	3,783	47	327	380	1,629	65	445	1,268	5,412
04:15	22		946		54		392		76		1,338	
04:30	35		984		97		404		132		1,388	
04:45	43		965		129		453		172		1,418	
05:00	41	260	1,103	4,495	142	1,023	452	1,886	183	1,283	1,555	6,381
05:15	57		1,158		203		466		260		1,624	
05:30	84		1,150		300		466		384		1,616	
05:45	78		1,084		378		502		456		1,586	
06:00	124	730	1,158	3,892	376	2,044	424	1,646	500	2,774	1,582	5,538
06:15	148		1,128		426		454		574		1,582	
06:30	192		898		511		376		703		1,274	
06:45	266		708		731		392		997		1,100	
07:00	262	1,171	544	1,938	706	3,917	288	1,118	968	5,088	832	3,056
07:15	264		518		917		308		1,181		826	
07:30	288		462		1,088		260		1,376		722	
07:45	357		414		1,206		262		1,563		676	
08:00	350	1,454	416	1,537	1,142	4,463	254	928	1,492	5,917	670	2,465
08:15	398		388		1,190		246		1,588		634	
08:30	354		395		1,070		230		1,424		625	
08:45	352		338		1,061		198		1,413		536	
09:00	308	1,200	350	1,191	864	2,759	184	650	1,172	3,959	534	1,841
09:15	300		309		708		190		1,008		499	
09:30	274		296		629		152		903		448	
09:45	318		236		558		124		876		360	
10:00	286	1,287	238	798	486	1,893	141	451	772	3,180	379	1,249
10:15	342		213		489		132		831		345	
10:30	303		173		480		102		783		275	
10:45	356		174		438		76		794		250	
11:00	369	1,557	154	451	411	1,833	82	254	780	3,390	236	705
11:15	382		103		464		54		846		157	
11:30	386		104		492		68		878		172	
11:45	420		90		466		50		886		140	
Totals	8,267		27,336		18,690		15,240		26,957		42,576	
Split%	30.7		64.2		69.3		35.8					
Day Totals		35,603				33,930				69,533		
Day Splits		51.2				48.8						
Peak Hour	11:00		05:15		07:30		05:00		07:45		05:15	
Volume	1,557		4,550		4,626		1,886		6,067		6,408	
Factor	0.93		0.98		0.96		0.94		0.96		0.99	

Data File : D1405076

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : JAMBOREE FRONTAGE ROAD
Segment : EDINGER TO WALNUT
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Interval
Day: Thursday

Begin	AM - NB		PM - NB	
12:00	11	27	64	314
12:15	7		106	
12:30	5		68	
12:45	4		76	
1:00	6	17	102	333
1:15	6		80	
1:30	3		72	
1:45	2		79	
2:00	3	7	72	357
2:15	2		109	
2:30	1		80	
2:45	1		96	
3:00	1	13	94	391
3:15	3		93	
3:30	8		100	
3:45	1		104	
4:00	5	31	132	534
4:15	6		140	
4:30	9		108	
4:45	11		154	
5:00	11	74	153	621
5:15	18		146	
5:30	20		182	
5:45	25		140	
6:00	34	224	150	558
6:15	46		170	
6:30	70		120	
6:45	74		118	
7:00	74	392	82	263
7:15	93		68	
7:30	126		59	
7:45	99		54	
8:00	134	441	62	227
8:15	90		53	
8:30	115		60	
8:45	102		52	
9:00	103	334	40	135
9:15	82		43	
9:30	80		25	
9:45	69		27	
10:00	64	277	29	96
10:15	62		32	
10:30	71		16	
10:45	80		19	
11:00	54	297	10	32
11:15	70		8	
11:30	83		7	
11:45	90		7	
Totals	2,134		3,861	
Peak Hour	7:15		5:30	
Volume	452		642	
Factor	0.84		0.88	
DayTotal	**5,995**			

Data File : D1405077

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : JAMBOREE FRONTAGE ROAD
Segment : WALNUT TO EDINGER
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Interval
Day: Thursday

Begin	AM - SB		PM - SB	
12:00	10	40	77	318
12:15	15		71	
12:30	5		86	
12:45	10		84	
1:00	3	12	90	285
1:15	5		65	
1:30	2		62	
1:45	2		68	
2:00	3	14	70	346
2:15	6		102	
2:30	5		78	
2:45	0		96	
3:00	1	7	133	505
3:15	0		126	
3:30	1		116	
3:45	5		130	
4:00	7	30	116	495
4:15	5		108	
4:30	10		134	
4:45	8		137	
5:00	6	111	159	573
5:15	32		140	
5:30	19		144	
5:45	54		130	
6:00	58	341	142	485
6:15	77		118	
6:30	100		131	
6:45	106		94	
7:00	138	728	124	369
7:15	152		88	
7:30	200		84	
7:45	238		73	
8:00	180	695	66	215
8:15	168		56	
8:30	175		49	
8:45	172		44	
9:00	126	397	58	191
9:15	97		57	
9:30	86		40	
9:45	88		36	
10:00	78	274	22	102
10:15	70		30	
10:30	64		26	
10:45	62		24	
11:00	65	265	23	82
11:15	68		21	
11:30	62		16	
11:45	70		22	
Totals	2,914		3,966	
Peak Hour	7:30		4:45	
Volume	786		580	
Factor	0.83		0.91	
DayTotal	**6,880**			

Data File : D1405078

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location: : JAMBOREE ROAD
Segment: : WARNER AVE TO EDINGER AVE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	56	209	460	1,886	17	76	492	1,983	73	285	952	3,869
12:15	60		484		16		497		76		981	
12:30	46		452		17		458		63		910	
12:45	47		490		26		536		73		1,026	
01:00	45	118	514	2,115	17	56	448	1,805	62	174	962	3,920
01:15	29		553		16		448		45		1,001	
01:30	22		532		13		447		35		979	
01:45	22		516		10		462		32		978	
02:00	14	76	534	2,322	18	61	426	1,211	32	137	960	3,533
02:15	31		564		10		354		41		918	
02:30	13		578		9		252		22		830	
02:45	18		646		24		179		42		825	
03:00	24	75	654	3,068	12	102	202	783	36	177	856	3,851
03:15	16		758		28		196		44		954	
03:30	12		731		26		205		38		936	
03:45	23		925		36		180		59		1,105	
04:00	16	99	910	3,905	18	224	274	971	34	323	1,184	4,876
04:15	15		963		33		271		48		1,234	
04:30	24		928		62		202		86		1,130	
04:45	44		1,104		111		224		155		1,328	
05:00	40	258	1,166	4,573	112	877	227	1,039	152	1,135	1,393	5,612
05:15	66		1,114		182		254		248		1,368	
05:30	52		1,134		251		276		303		1,410	
05:45	100		1,159		332		282		432		1,441	
06:00	132	806	1,064	3,778	361	1,921	282	890	493	2,727	1,346	4,668
06:15	176		1,117		408		256		584		1,373	
06:30	236		886		532		194		768		1,080	
06:45	262		711		620		158		882		869	
07:00	278	1,261	598	2,153	461	3,495	216	1,145	739	4,756	814	3,298
07:15	286		616		858		329		1,144		945	
07:30	325		497		1,038		318		1,363		815	
07:45	372		442		1,138		282		1,510		724	
08:00	318	1,398	415	1,416	1,212	4,561	221	794	1,530	5,959	636	2,210
08:15	378		332		1,176		196		1,554		528	
08:30	354		362		1,017		176		1,371		538	
08:45	348		307		1,156		201		1,504		508	
09:00	354	1,318	367	1,214	840	2,093	106	314	1,194	3,411	473	1,528
09:15	314		304		386		85		700		389	
09:30	310		284		451		62		761		346	
09:45	340		259		416		61		756		320	
10:00	358	1,381	210	719	521	2,048	58	237	879	3,429	268	956
10:15	315		221		506		64		821		285	
10:30	334		147		500		65		834		212	
10:45	374		141		521		50		895		191	
11:00	398	1,686	134	403	465	2,064	39	177	863	3,750	173	580
11:15	391		114		517		36		908		150	
11:30	396		89		511		46		907		135	
11:45	501		66		571		56		1,072		122	
Totals	8,685		27,552		17,578		11,349		26,263		38,901	
Split%	33.1		70.8		66.9		29.2					
Day Totals		36,237				28,927				65,164		
Day Splits		55.6				44.4						
Peak Hour	11:00		05:00		07:30		12:00		07:45		05:00	
Volume	1,686		4,573		4,564		1,983		5,965		5,612	
Factor	0.84		0.98		0.94		0.92		0.96		0.97	

Data File : D1405075

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

Location : JAMBOREE ROAD
Segment : BARRANCA PKWY TO WARNER AVE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Interval	NB				SB				Combined				Day: Wednesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	52	179	394	1,432	32	94	361	1,468	84	273	755	2,900	
12:15	48		330		22		365		70		695		
12:30	39		355		16		350		55		705		
12:45	40		353		24		392		64		745		
01:00	26	72	342	1,487	21	55	322	1,432	47	127	664	2,919	
01:15	20		405		13		371		33		776		
01:30	15		358		13		387		28		745		
01:45	11		382		8		352		19		734		
02:00	21	59	388	1,818	18	37	348	1,356	39	96	736	3,174	
02:15	12		443		4		314		16		757		
02:30	8		473		6		344		14		817		
02:45	18		514		9		350		27		864		
03:00	6	39	538	2,518	15	83	327	1,354	21	122	865	3,872	
03:15	5		594		26		338		31		932		
03:30	10		665		14		334		24		999		
03:45	18		721		28		355		46		1,076		
04:00	8	69	788	3,370	22	236	370	1,443	30	305	1,158	4,813	
04:15	13		792		40		366		53		1,158		
04:30	20		844		60		342		80		1,186		
04:45	28		946		114		365		142		1,311		
05:00	22	180	1,007	3,891	124	816	400	1,577	146	996	1,407	5,468	
05:15	43		946		167		411		210		1,357		
05:30	36		951		227		386		263		1,337		
05:45	79		987		298		380		377		1,367		
06:00	91	529	975	3,120	316	1,917	380	1,488	407	2,446	1,355	4,608	
06:15	136		893		388		392		524		1,285		
06:30	132		664		503		380		635		1,044		
06:45	170		588		710		336		880		924		
07:00	162	850	438	1,568	724	3,824	312	1,106	886	4,674	750	2,674	
07:15	219		444		930		300		1,149		744		
07:30	212		348		1,060		268		1,272		616		
07:45	257		338		1,110		226		1,367		564		
08:00	245	1,007	317	1,054	1,066	4,138	189	777	1,311	5,145	506	1,831	
08:15	248		216		1,028		196		1,276		412		
08:30	276		290		1,040		190		1,316		480		
08:45	238		231		1,004		202		1,242		433		
09:00	232	920	286	936	854	2,575	169	564	1,086	3,495	455	1,500	
09:15	228		240		605		153		833		393		
09:30	224		216		616		122		840		338		
09:45	236		194		500		120		736		314		
10:00	234	988	185	550	433	1,615	114	392	667	2,603	299	942	
10:15	234		143		386		130		620		273		
10:30	216		114		392		80		608		194		
10:45	304		108		404		68		708		176		
11:00	258	1,172	110	308	364	1,534	47	174	622	2,706	157	482	
11:15	282		86		392		40		674		126		
11:30	290		64		384		46		674		110		
11:45	342		48		394		41		736		89		
Totals	6,064		22,052		16,924		13,131		22,988		35,183		
Split%	26.4		62.7		73.6		37.3						
Day Totals		28,116				30,055				58,171			
Day Splits		48.3				51.7							
Peak Hour	11:00		05:00		07:30		05:00		07:45		05:00		
Volume	1,172		3,891		4,264		1,577		5,270		5,468		
Factor	0.86		0.97		0.96		0.96		0.96		0.97		

* Data File : D1405074

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Jamboree Road
B/ Alton Parkway - Beckman Avenue

File Name 191
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
4/30/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	47	422			30	314				
12:15	46	418			35	367				
12:30	25	352			29	362				
12:45	40	375	158	1567	27	443	121	1486	279	3053
1:00	24	355			9	359				
1:15	16	424			9	358				
1:30	20	363			13	408				
1:45	17	368	77	1510	0	329	31	1454	108	2964
2:00	9	397			12	346				
2:15	21	443			10	316				
2:30	11	435			13	342				
2:45	15	481	56	1756	8	354	43	1358	99	3114
3:00	11	516			4	323				
3:15	10	547			16	304				
3:30	10	578			14	281				
3:45	15	617	46	2258	14	296	48	1204	94	3462
4:00	18	592			14	324				
4:15	18	715			24	296				
4:30	15	496			34	321				
4:45	33	669	84	2472	73	328	145	1269	229	3741
5:00	49	697			72	359				
5:15	43	737			96	395				
5:30	46	764			146	365				
5:45	83	764	221	2962	150	358	464	1477	685	4439
6:00	79	607			179	351				
6:15	133	716			245	355				
6:30	136	611			305	266				
6:45	145	528	493	2462	453	329	1182	1301	1675	3763
7:00	153	453			467	272				
7:15	153	395			557	268				
7:30	195	401			740	234				
7:45	225	308	726	1557	657	224	2421	998	3147	2555
8:00	218	286			786	210				
8:15	267	271			827	179				
8:30	247	246			751	163				
8:45	258	219	990	1022	786	196	3150	748	4140	1770
9:00	262	225			750	169				
9:15	225	218			619	185				
9:30	231	218			593	165				
9:45	238	192	956	853	561	123	2523	642	3479	1495
10:00	279	199			396	108				
10:15	244	114			374	100				
10:30	265	118			392	90				
10:45	256	101	1044	532	332	71	1494	369	2538	901
11:00	267	80			373	52				
11:15	320	55			341	60				
11:30	376	71			321	49				
11:45	346	43	1309	249	395	38	1430	199	2739	448
Totals	6160	19200			13052	12505				
Combined Totals		25360				25557				
ADT										50917
AM Peak Hour	1100	AM			800	AM				
Volume	1309				3150					
P.H.F.	0.870				0.952					
PM Peak Hour		500	PM			2445	PM			
Volume		2962				1568				
P.H.F.		0.969				0.885				
Percentage	24.3%	75.7%			51.1%	48.9%				

Phone: 951-268-6268 counts@countsunlimited.com Phone: 951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

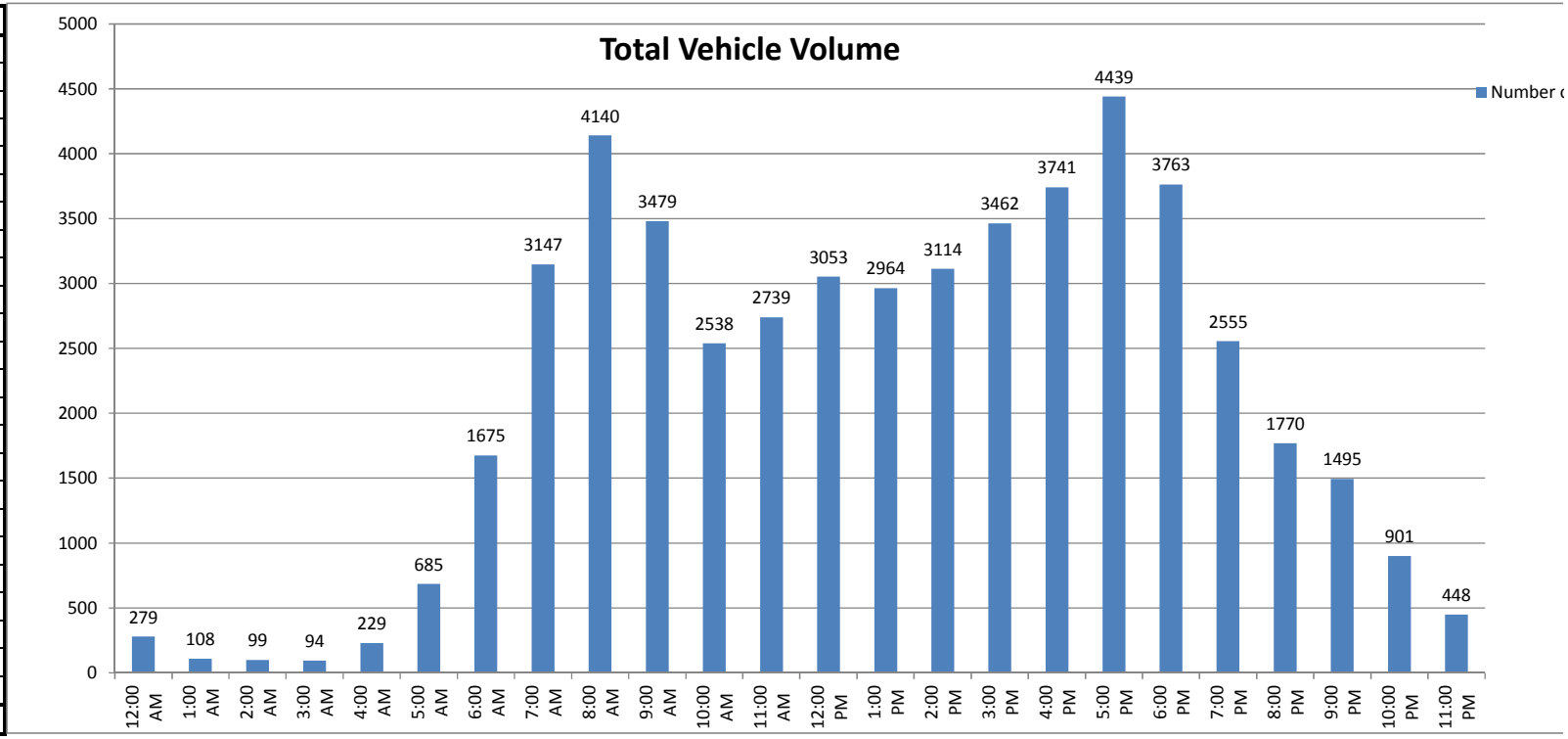
Jamboree Road

B/ Alton Parkway - Beckman Avenue

4/30/2014

Southbound

Start Time	4/30/2014
12:00 AM	279
1:00 AM	108
2:00 AM	99
3:00 AM	94
4:00 AM	229
5:00 AM	685
6:00 AM	1675
7:00 AM	3147
8:00 AM	4140
9:00 AM	3479
10:00 AM	2538
11:00 AM	2739
12:00 PM	3053
1:00 PM	2964
2:00 PM	3114
3:00 PM	3462
4:00 PM	3741
5:00 PM	4439
6:00 PM	3763
7:00 PM	2555
8:00 PM	1770
9:00 PM	1495
10:00 PM	901
11:00 PM	448
Total	50917



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Phone: 951-268-6268

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : HARVARD AVENUE
Segment : N/O EDINGER AVE/ ICD
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Interval	SB				NB				Combined				Day: Wednesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	3	9	63	228	10	22	70	262	13	31	133	490	
12:15	3		57		2		52		5		109		
12:30	1		56		6		66		7		122		
12:45	2		52		4		74		6		126		
01:00	2	6	67	284	5	16	82	317	7	22	149	601	
01:15	0		51		4		91		4		142		
01:30	2		96		3		76		5		172		
01:45	2		70		4		68		6		138		
02:00	1	4	74	352	3	7	64	253	4	11	138	605	
02:15	2		89		2		70		4		159		
02:30	1		100		1		58		2		158		
02:45	0		89		1		61		1		150		
03:00	0	7	60	240	1	8	83	361	1	15	143	601	
03:15	4		62		1		98		5		160		
03:30	0		64		6		80		6		144		
03:45	3		54		0		100		3		154		
04:00	1	12	62	267	0	5	108	446	1	17	170	713	
04:15	0		68		1		118		1		186		
04:30	6		69		0		104		6		173		
04:45	5		68		4		116		9		184		
05:00	4	52	75	296	3	17	157	739	7	69	232	1,035	
05:15	14		67		3		197		17		264		
05:30	18		76		5		191		23		267		
05:45	16		78		6		194		22		272		
06:00	23	147	100	305	10	58	178	548	33	205	278	853	
06:15	26		68		5		154		31		222		
06:30	42		67		14		114		56		181		
06:45	56		70		29		102		85		172		
07:00	41	397	80	273	26	192	92	359	67	589	172	632	
07:15	78		79		34		110		112		189		
07:30	122		55		48		86		170		141		
07:45	156		59		84		71		240		130		
08:00	163	495	40	200	58	237	56	303	221	732	96	503	
08:15	122		56		68		88		190		144		
08:30	114		46		51		82		165		128		
08:45	96		58		60		77		156		135		
09:00	85	275	30	83	48	188	47	174	133	463	77	257	
09:15	55		19		52		50		107		69		
09:30	67		16		47		49		114		65		
09:45	68		18		41		28		109		46		
10:00	48	225	25	65	42	175	38	133	90	400	63	198	
10:15	54		23		55		44		109		67		
10:30	71		8		32		26		103		34		
10:45	52		9		46		25		98		34		
11:00	48	195	10	23	54	245	14	53	102	440	24	76	
11:15	43		4		64		14		107		18		
11:30	56		5		68		12		124		17		
11:45	48		4		59		13		107		17		
Totals	1,824		2,616		1,170		3,948		2,994		6,564		
Split%	60.9		39.9		39.1		60.1						
Day Totals		4,440				5,118				9,558			
Day Splits		46.5				53.5							
Peak Hour	07:30		02:00		07:45		05:15		07:30		05:15		
Volume	563		352		261		760		821		1,081		
Factor	0.86		0.88		0.78		0.96		0.86		0.97		

* Data File : D1405073

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

Location: : HARVARD AVENUE
Segment: : PASEO WESTPARK TO EDINGER AVE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	9	17	77	325	3	17	76	310	12	34	153	635
12:15	3		78		6		78		9		156	
12:30	3		86		4		74		7		160	
12:45	2		84		4		82		6		166	
01:00	5	18	73	357	4	13	81	355	9	31	154	712
01:15	5		105		5		80		10		185	
01:30	6		93		2		96		8		189	
01:45	2		86		2		98		4		184	
02:00	3	9	76	338	5	9	78	316	8	18	154	654
02:15	1		106		2		96		3		202	
02:30	2		76		1		72		3		148	
02:45	3		80		1		70		4		150	
03:00	0	10	95	424	0	8	94	337	0	18	189	761
03:15	2		106		1		85		3		191	
03:30	6		102		1		84		7		186	
03:45	2		121		6		74		8		195	
04:00	2	15	124	555	0	5	78	333	2	20	202	888
04:15	3		132		2		78		5		210	
04:30	5		133		0		72		5		205	
04:45	5		166		3		105		8		271	
05:00	7	45	180	906	3	41	116	442	10	86	296	1,348
05:15	10		244		4		110		14		354	
05:30	12		244		13		108		25		352	
05:45	16		238		21		108		37		346	
06:00	16	102	210	680	20	117	137	411	36	219	347	1,091
06:15	22		194		17		100		39		294	
06:30	22		140		30		82		52		222	
06:45	42		136		50		92		92		228	
07:00	50	302	128	420	43	362	78	317	93	664	206	737
07:15	66		121		77		92		143		213	
07:30	78		95		98		74		176		169	
07:45	108		76		144		73		252		149	
08:00	110	371	56	264	168	515	53	227	278	886	109	491
08:15	86		61		132		72		218		133	
08:30	81		84		115		52		196		136	
08:45	94		63		100		50		194		113	
09:00	65	278	52	185	76	286	52	138	141	564	104	323
09:15	75		55		76		28		151		83	
09:30	70		52		74		28		144		80	
09:45	68		26		60		30		128		56	
10:00	52	218	35	117	64	233	26	88	116	451	61	205
10:15	54		35		48		24		102		59	
10:30	46		23		67		22		113		45	
10:45	66		24		54		16		120		40	
11:00	60	300	14	46	65	226	13	40	125	526	27	86
11:15	74		16		47		10		121		26	
11:30	88		6		50		9		138		15	
11:45	78		10		64		8		142		18	
Totals	1,685		4,617		1,832		3,314		3,517		7,931	
Split%	47.9		58.2		52.1		41.8					
Day Totals		6,302				5,146				11,448		
Day Splits		55.0				45.0						
Peak Hour	07:45		05:15		07:45		05:15		07:45		05:15	
Volume	385		936		559		463		944		1,399	
Factor	0.88		0.96		0.83		0.84		0.85		0.99	

Data File : D1405072

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location: : HARVARD AVENUE
Segment: : N/O WARNER AVENUE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	12	31	92	366	3	16	70	346	15	47	162	712
12:15	6		82		6		82		12		164	
12:30	11		96		4		68		15		164	
12:45	2		96		3		126		5		222	
01:00	9	27	82	407	2	4	95	414	11	31	177	821
01:15	4		128		1		102		5		230	
01:30	7		98		1		102		8		200	
01:45	7		99		0		115		7		214	
02:00	8	16	88	359	3	6	102	373	11	22	190	732
02:15	3		102		2		103		5		205	
02:30	2		76		1		76		3		152	
02:45	3		93		0		92		3		185	
03:00	0	12	104	494	0	6	99	356	0	18	203	850
03:15	3		140		1		105		4		245	
03:30	8		118		0		78		8		196	
03:45	1		132		5		74		6		206	
04:00	2	11	130	602	0	9	89	339	2	20	219	941
04:15	3		137		2		88		5		225	
04:30	2		162		2		66		4		228	
04:45	4		173		5		96		9		269	
05:00	4	37	221	1,039	4	68	112	436	8	105	333	1,475
05:15	8		269		13		112		21		381	
05:30	6		309		21		96		27		405	
05:45	19		240		30		116		49		356	
06:00	15	110	229	752	40	184	139	443	55	294	368	1,195
06:15	23		196		30		130		53		326	
06:30	26		170		50		82		76		252	
06:45	46		157		64		92		110		249	
07:00	36	216	146	628	76	574	74	272	112	790	220	900
07:15	44		160		104		76		148		236	
07:30	52		142		160		64		212		206	
07:45	84		180		234		58		318		238	
08:00	132	390	87	398	242	711	52	212	374	1,101	139	610
08:15	105		94		184		61		289		155	
08:30	75		124		141		47		216		171	
08:45	78		93		144		52		222		145	
09:00	69	271	94	315	119	388	48	128	188	659	142	443
09:15	79		94		101		30		180		124	
09:30	64		90		92		26		156		116	
09:45	59		37		76		24		135		61	
10:00	60	236	46	174	78	289	29	85	138	525	75	259
10:15	52		54		71		20		123		74	
10:30	48		32		74		21		122		53	
10:45	76		42		66		15		142		57	
11:00	58	328	30	75	80	273	15	39	138	601	45	114
11:15	80		20		62		8		142		28	
11:30	101		9		60		10		161		19	
11:45	89		16		71		6		160		22	
Totals	1,685		5,609		2,528		3,443		4,213		9,052	
Split%	40.0		62.0		60.0		38.0					
Day Totals		7,294				5,971				13,265		
Day Splits		55.0				45.0						
Peak Hour	07:45		05:15		07:30		05:30		07:45		05:15	
Volume	396		1,047		820		481		1,197		1,510	
Factor	0.75		0.85		0.85		0.87		0.80		0.93	

Data File : D1405071

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Harvard Avenue
B/ Barranca Parkway - Warner Avenue

File Name 131
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
2/19/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	6	108			3	72				
12:15	10	89			8	97				
12:30	9	92			8	107				
12:45	10	82	35	371	2	130	21	406	56	777
1:00	7	105			4	128				
1:15	7	138			3	122				
1:30	7	132			1	129				
1:45	5	108	26	483	1	119	9	498	35	981
2:00	3	91			2	119				
2:15	3	134			1	86				
2:30	6	95			1	104				
2:45	3	98	15	418	1	93	5	402	20	820
3:00	1	116			1	100				
3:15	4	157			0	104				
3:30	0	133			3	85				
3:45	4	150	9	556	4	93	8	382	17	938
4:00	2	184			2	95				
4:15	2	187			3	110				
4:30	3	244			6	89				
4:45	3	236	10	851	7	118	18	412	28	1263
5:00	3	272			12	119				
5:15	7	316			20	111				
5:30	6	326			19	136				
5:45	9	312	25	1226	26	109	77	475	102	1701
6:00	11	313			30	131				
6:15	14	255			34	125				
6:30	27	197			45	90				
6:45	37	147	89	912	62	85	171	431	260	1343
7:00	40	175			94	95				
7:15	50	152			123	88				
7:30	52	102			222	64				
7:45	76	88	218	517	247	79	686	326	904	843
8:00	89	95			247	55				
8:15	77	78			220	47				
8:30	59	76			201	55				
8:45	71	83	296	332	169	37	837	194	1133	526
9:00	66	81			154	45				
9:15	64	67			113	31				
9:30	56	80			124	30				
9:45	70	50	256	278	105	29	496	135	752	413
10:00	63	44			95	26				
10:15	71	44			75	31				
10:30	56	29			86	17				
10:45	69	26	259	143	74	13	330	87	589	230
11:00	81	15			69	10				
11:15	75	16			95	11				
11:30	83	17			103	6				
11:45	103	15	342	63	80	6	347	33	689	96
Totals	1580	6150			3005	3781				
Combined Totals		7730				6786				
ADT										14516
AM Peak Hour	1100	AM			730	AM				
Volume	342				936					
P.H.F.	0.830				0.947					
PM Peak Hour		515	PM			2445	PM			
Volume		1267				509				
P.H.F.		0.972				0.979				
Percentage	20.4%	79.6%			44.3%	55.7%				

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Corona, CA 92878

24 Hour Volume Plot

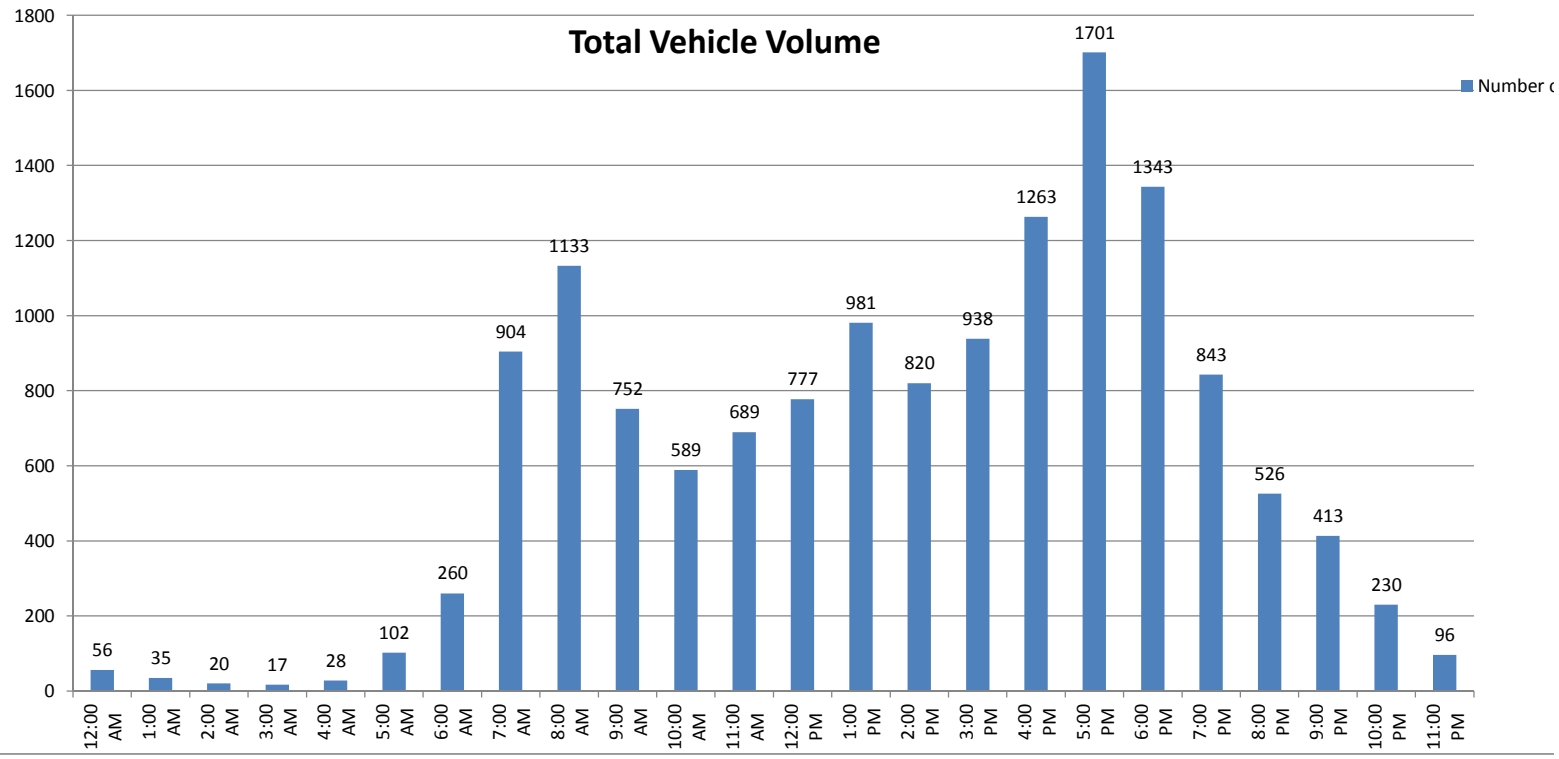
Harvard Avenue

B/ Barranca Parkway - Warner Avenue

2/19/2014

Southbound

Start Time	2/19/2014
12:00 AM	56
1:00 AM	35
2:00 AM	20
3:00 AM	17
4:00 AM	28
5:00 AM	102
6:00 AM	260
7:00 AM	904
8:00 AM	1133
9:00 AM	752
10:00 AM	589
11:00 AM	689
12:00 PM	777
1:00 PM	981
2:00 PM	820
3:00 PM	938
4:00 PM	1263
5:00 PM	1701
6:00 PM	1343
7:00 PM	843
8:00 PM	526
9:00 PM	413
10:00 PM	230
11:00 PM	96
Total	14516



Volumes represent the combined totals for both directions

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City of Irvine
Harvard Avenue
B/ San Juan - Barranca Parkway

File Name 130
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
2/20/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	11	153			5	144				
12:15	11	140			12	139				
12:30	10	111			9	147				
12:45	5	147	37	551	6	159	32	589	69	1140
1:00	6	127			6	160				
1:15	7	110			5	147				
1:30	3	114			6	126				
1:45	6	100	22	451	3	125	20	558	42	1009
2:00	4	129			4	131				
2:15	5	155			5	133				
2:30	4	137			2	122				
2:45	1	161	14	582	1	122	12	508	26	1090
3:00	6	150			4	110				
3:15	1	167			2	125				
3:30	3	162			4	119				
3:45	5	181	15	660	4	110	14	464	29	1124
4:00	4	230			3	128				
4:15	2	242			3	128				
4:30	0	213			4	129				
4:45	8	285	14	970	11	131	21	516	35	1486
5:00	5	301			10	143				
5:15	10	343			14	145				
5:30	10	405			25	167				
5:45	10	407	35	1456	25	166	74	621	109	2077
6:00	15	334			39	165				
6:15	27	280			58	149				
6:30	32	247			45	123				
6:45	59	206	133	1067	105	122	247	559	380	1626
7:00	67	178			85	115				
7:15	72	151			135	134				
7:30	74	121			230	107				
7:45	99	86	312	536	278	114	728	470	1040	1006
8:00	116	104			288	101				
8:15	121	127			249	89				
8:30	114	88			255	86				
8:45	125	64	476	383	215	79	1007	355	1483	738
9:00	66	91			189	83				
9:15	86	78			125	57				
9:30	80	69			120	52				
9:45	91	52	323	290	115	42	549	234	872	524
10:00	94	75			74	39				
10:15	83	55			104	37				
10:30	101	33			99	39				
10:45	100	26	378	189	78	24	355	139	733	328
11:00	96	32			72	32				
11:15	99	19			101	21				
11:30	130	26			102	12				
11:45	148	15	473	92	127	14	402	79	875	171
Totals	2232	7227			3461	5092				
Combined Totals		9459				8553				
ADT										18012
AM Peak Hour	800	AM			745	AM				
Volume	476				1070					
P.H.F.	0.952				0.929					
PM Peak Hour		515	PM			530	PM			
Volume		1489				647				
P.H.F.		0.915				0.969				
Percentage	23.6%	76.4%			40.5%	59.5%				

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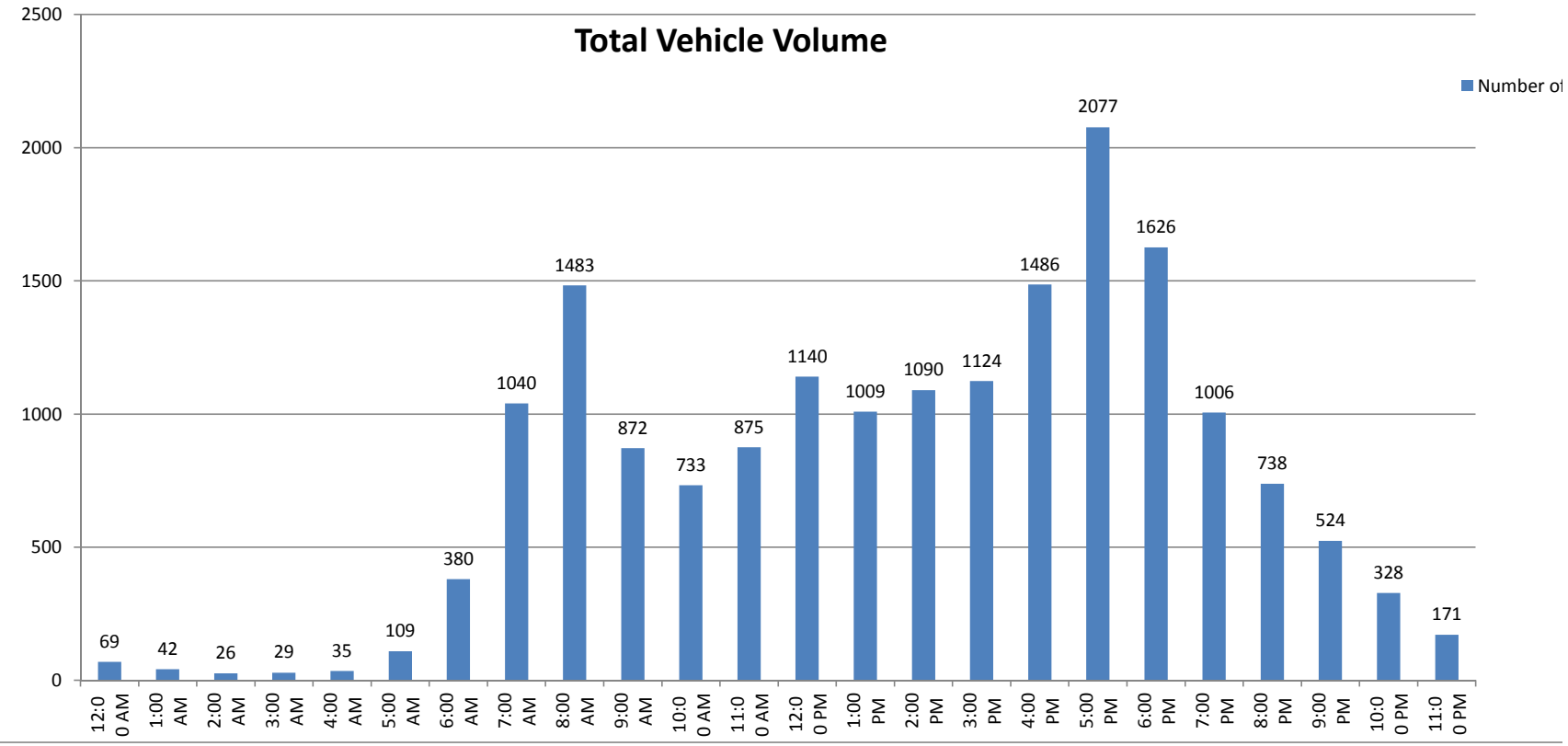
24 Hour Volume Plot

Harvard Avenue
B/ San Juan - Barranca Parkway
2/20/2014

Southbound

Start Time	2/20/2014
12:00 AM	69
1:00 AM	42
2:00 AM	26
3:00 AM	29
4:00 AM	35
5:00 AM	109
6:00 AM	380
7:00 AM	1040
8:00 AM	1483
9:00 AM	872
10:00 AM	733
11:00 AM	875
12:00 PM	1140
1:00 PM	1009
2:00 PM	1090
3:00 PM	1124
4:00 PM	1486
5:00 PM	2077
6:00 PM	1626
7:00 PM	1006
8:00 PM	738
9:00 PM	524
10:00 PM	328
11:00 PM	171
Total	18012



Volumes represent the combined totals for both directions

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City of Irvine
Culver Drive
B/ Deerfield Avenue - Walnut Avenue

File Name 103
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/12/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	50	296			35	297				
12:15	38	352			33	319				
12:30	29	293			25	325				
12:45	22	337	139	1278	18	303	111	1244	250	2522
1:00	25	353			16	292				
1:15	12	301			11	326				
1:30	11	344			17	314				
1:45	14	289	62	1287	12	349	56	1281	118	2568
2:00	5	336			14	302				
2:15	5	297			9	294				
2:30	5	316			6	286				
2:45	8	341	23	1290	7	334	36	1216	59	2506
3:00	12	336			7	305				
3:15	8	421			7	325				
3:30	6	401			8	342				
3:45	10	372	36	1530	11	309	33	1281	69	2811
4:00	5	398			16	309				
4:15	11	400			12	305				
4:30	11	431			18	315				
4:45	24	447	51	1676	30	338	76	1267	127	2943
5:00	17	447			35	351				
5:15	42	452			49	347				
5:30	33	527			60	379				
5:45	46	485	138	1911	74	389	218	1466	356	3377
6:00	72	525			64	358				
6:15	56	458			111	383				
6:30	106	412			134	353				
6:45	135	382	369	1777	213	339	522	1433	891	3210
7:00	144	429			226	303				
7:15	157	357			316	353				
7:30	250	331			452	279				
7:45	328	340	879	1457	533	254	1527	1189	2406	2646
8:00	238	286			530	234				
8:15	254	275			571	235				
8:30	241	257			499	223				
8:45	209	206	942	1024	492	194	2092	886	3034	1910
9:00	236	203			368	187				
9:15	258	246			365	175				
9:30	265	168			286	136				
9:45	208	181	967	798	293	125	1312	623	2279	1421
10:00	232	155			270	132				
10:15	215	136			287	107				
10:30	262	98			284	86				
10:45	207	77	916	466	310	81	1151	406	2067	872
11:00	240	78			258	62				
11:15	244	59			266	63				
11:30	316	58			351	39				
11:45	309	47	1109	242	288	43	1163	207	2272	449
Totals	5631	14736			8297	12499				
Combined Totals		20367				20796				
ADT										41163
AM Peak Hour	1100	AM			745	AM				
Volume	1109				2133					
P.H.F.	0.877				0.934					
PM Peak Hour		530	PM			530	PM			
Volume		1995				1509				
P.H.F.		0.946				0.970				
Percentage	27.6%	72.4%			39.9%	60.1%				

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24 Hour Volume Plot

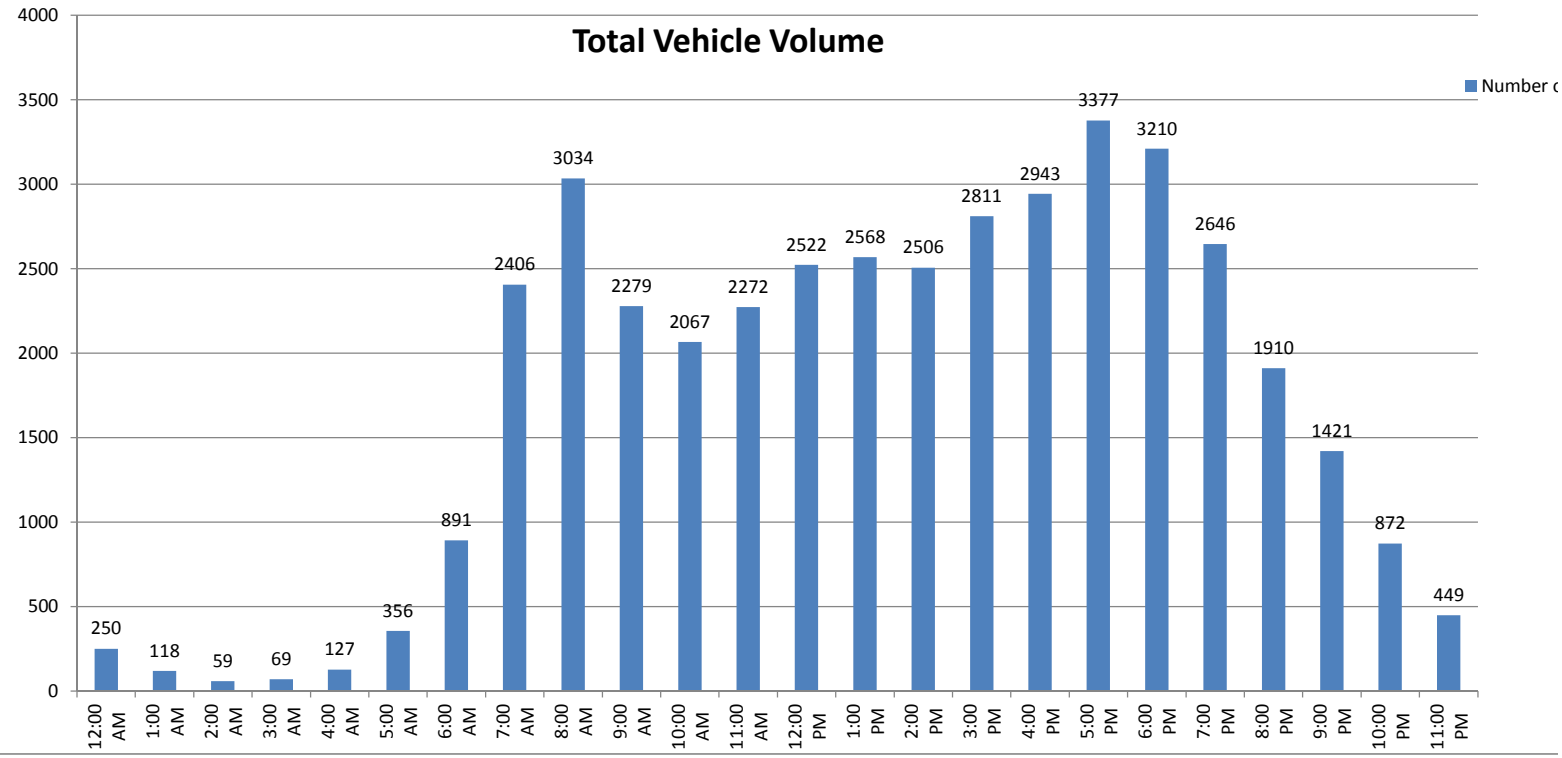
Culver Drive

B/ Deerfield Avenue - Walnut Avenue

3/12/2014

Southbound

Start Time	3/12/2014
12:00 AM	250
1:00 AM	118
2:00 AM	59
3:00 AM	69
4:00 AM	127
5:00 AM	356
6:00 AM	891
7:00 AM	2406
8:00 AM	3034
9:00 AM	2279
10:00 AM	2067
11:00 AM	2272
12:00 PM	2522
1:00 PM	2568
2:00 PM	2506
3:00 PM	2811
4:00 PM	2943
5:00 PM	3377
6:00 PM	3210
7:00 PM	2646
8:00 PM	1910
9:00 PM	1421
10:00 PM	872
11:00 PM	449
Total	41163



Volumes represent the combined totals for both directions

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City of Irvine
Culver Drive
B/ Irvine Center Drive - Deerfield Avenue

File Name 102
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/13/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	35	261			45	311				
12:15	22	274			24	311				
12:30	24	302			26	277				
12:45	22	310	103	1147	17	340	112	1239	215	2386
1:00	18	257			15	291				
1:15	14	253			13	298				
1:30	13	261			12	254				
1:45	14	288	59	1059	9	301	49	1144	108	2203
2:00	5	273			12	282				
2:15	9	358			4	291				
2:30	8	307			11	364				
2:45	12	322	34	1260	8	317	35	1254	69	2514
3:00	4	321			5	318				
3:15	10	376			6	325				
3:30	16	346			7	335				
3:45	6	338	36	1381	10	322	28	1300	64	2681
4:00	7	349			7	258				
4:15	5	380			11	301				
4:30	8	426			16	318				
4:45	7	375	27	1530	24	322	58	1199	85	2729
5:00	14	467			33	348				
5:15	21	500			45	358				
5:30	24	516			44	355				
5:45	32	488	91	1971	69	366	191	1427	282	3398
6:00	44	499			78	370				
6:15	55	481			92	406				
6:30	76	454			147	347				
6:45	98	412	273	1846	194	321	511	1444	784	3290
7:00	142	342			247	309				
7:15	133	358			319	316				
7:30	169	322			456	306				
7:45	237	269	681	1291	548	256	1570	1187	2251	2478
8:00	216	246			518	234				
8:15	231	245			539	248				
8:30	170	258			534	231				
8:45	207	213	824	962	472	162	2063	875	2887	1837
9:00	211	189			389	234				
9:15	177	188			373	168				
9:30	185	199			328	143				
9:45	204	175	777	751	304	117	1394	662	2171	1413
10:00	178	148			265	133				
10:15	205	130			276	126				
10:30	182	84			267	90				
10:45	225	90	790	452	272	80	1080	429	1870	881
11:00	231	75			272	55				
11:15	264	56			241	57				
11:30	275	59			321	44				
11:45	277	56	1047	246	281	49	1115	205	2162	451
Totals	4742	13896			8206	12365				
Combined Totals		18638				20571				
ADT										39209
AM Peak Hour	1100	AM			745	AM				
Volume	1047				2139					
P.H.F.	0.945				0.976					
PM Peak Hour		515	PM			530	PM			
Volume		2003				1497				
P.H.F.		0.970				0.922				
Percentage	25.4%	74.6%			39.9%	60.1%				

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24 Hour Volume Plot

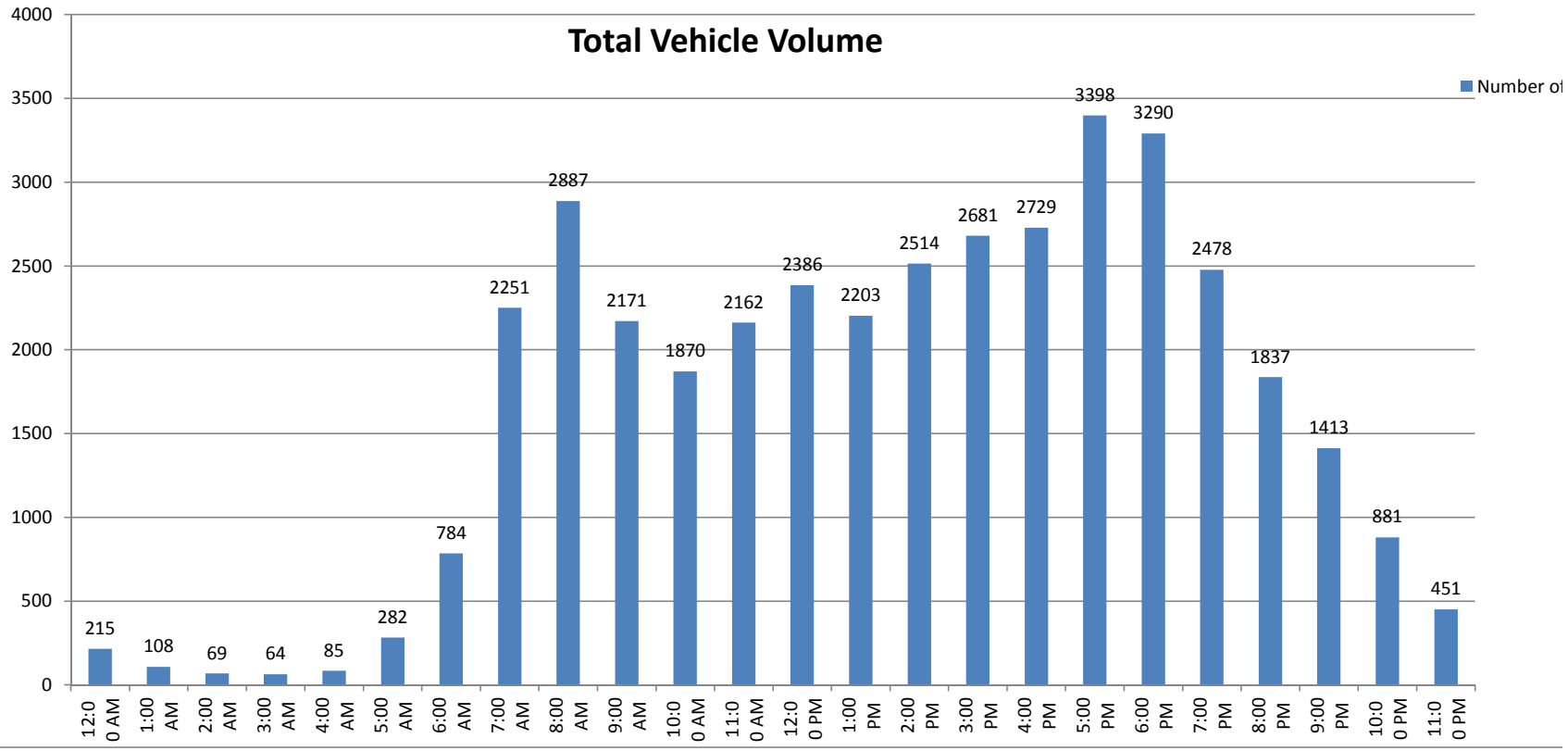
Culver Drive

B/ Irvine Center Drive - Deerfield Avenue

3/13/2014

Southbound

Start Time	3/13/2014
12:00 AM	215
1:00 AM	108
2:00 AM	69
3:00 AM	64
4:00 AM	85
5:00 AM	282
6:00 AM	784
7:00 AM	2251
8:00 AM	2887
9:00 AM	2171
10:00 AM	1870
11:00 AM	2162
12:00 PM	2386
1:00 PM	2203
2:00 PM	2514
3:00 PM	2681
4:00 PM	2729
5:00 PM	3398
6:00 PM	3290
7:00 PM	2478
8:00 PM	1837
9:00 PM	1413
10:00 PM	881
11:00 PM	451
Total	39209



Volumes represent the combined totals for both directions

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City of Irvine
Culver Drive
B/ Warner Avenue - Irvine Center Drive

File Name 101
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/12/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	43	322			21	293				
12:15	26	328			32	360				
12:30	29	321			24	323				
12:45	24	327	122	1298	23	390	100	1366	222	2664
1:00	19	370			18	361				
1:15	10	369			11	306				
1:30	18	330			13	300				
1:45	10	305	57	1374	9	331	51	1298	108	2672
2:00	13	295			16	349				
2:15	8	347			6	283				
2:30	8	313			5	308				
2:45	11	344	40	1299	5	353	32	1293	72	2592
3:00	11	366			7	317				
3:15	11	430			5	357				
3:30	8	414			13	334				
3:45	9	396	39	1606	10	329	35	1337	74	2943
4:00	6	424			10	307				
4:15	9	463			16	338				
4:30	9	478			20	320				
4:45	13	489	37	1854	28	351	74	1316	111	3170
5:00	19	565			39	326				
5:15	38	510			68	402				
5:30	38	564			58	412				
5:45	48	569	143	2208	86	376	251	1516	394	3724
6:00	53	561			74	402				
6:15	56	485			91	401				
6:30	84	449			165	371				
6:45	120	471	313	1966	239	355	569	1529	882	3495
7:00	133	463			256	290				
7:15	165	388			331	348				
7:30	247	360			477	298				
7:45	306	310	851	1521	597	266	1661	1202	2512	2723
8:00	274	300			568	264				
8:15	277	319			614	250				
8:30	251	249			540	251				
8:45	237	245	1039	1113	556	193	2278	958	3317	2071
9:00	264	223			434	214				
9:15	263	246			384	180				
9:30	245	170			348	160				
9:45	226	180	998	819	324	127	1490	681	2488	1500
10:00	205	173			310	135				
10:15	244	127			272	101				
10:30	219	103			327	70				
10:45	268	87	936	490	298	67	1207	373	2143	863
11:00	240	75			299	67				
11:15	249	56			298	51				
11:30	331	56			341	43				
11:45	329	58	1149	245	333	41	1271	202	2420	447
Totals	5724	15793			9019	13071				
Combined Totals		21517				22090				
ADT										43607
AM Peak Hour	1100	AM			745	AM				
Volume	1149				2319					
P.H.F.	0.868				0.944					
PM Peak Hour		500	PM			515	PM			
Volume		2208				1592				
P.H.F.		0.970				0.966				
Percentage	26.6%	73.4%			40.8%	59.2%				

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Corona, CA 92878

24 Hour Volume Plot

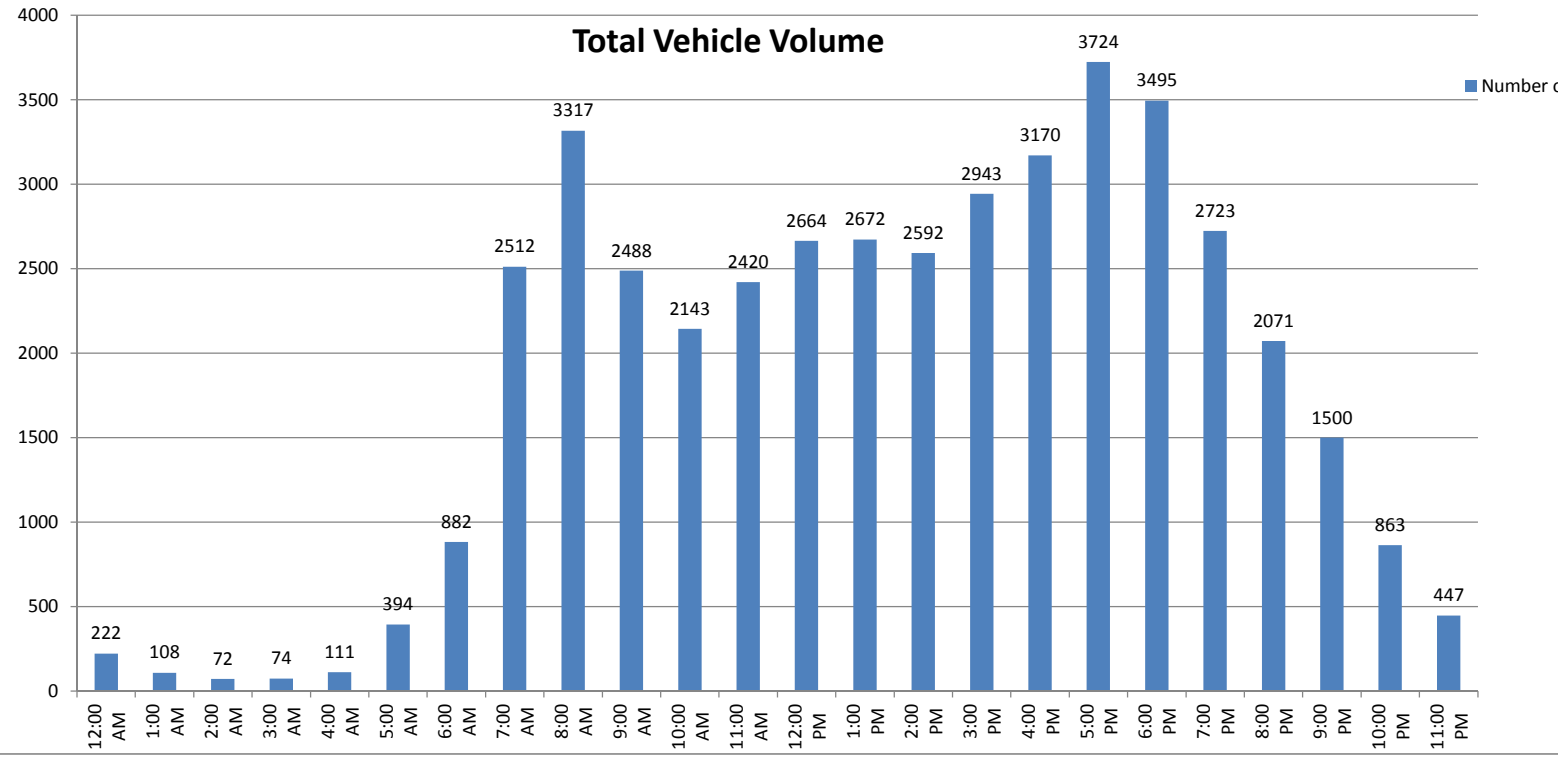
Culver Drive

B/ Warner Avenue - Irvine Center Drive

3/12/2014

Southbound

Start Time	3/12/2014
12:00 AM	222
1:00 AM	108
2:00 AM	72
3:00 AM	74
4:00 AM	111
5:00 AM	394
6:00 AM	882
7:00 AM	2512
8:00 AM	3317
9:00 AM	2488
10:00 AM	2143
11:00 AM	2420
12:00 PM	2664
1:00 PM	2672
2:00 PM	2592
3:00 PM	2943
4:00 PM	3170
5:00 PM	3724
6:00 PM	3495
7:00 PM	2723
8:00 PM	2071
9:00 PM	1500
10:00 PM	863
11:00 PM	447
Total	43607



Volumes represent the combined totals for both directions

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PO Box 1178
Corona, CA 92878

City of Irvine
Culver Drive
B/ Barranca Parkway - Warner Avenue

File Name 100
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
6/4/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	72	320			36	305				
12:15	59	336			36	350				
12:30	32	275			19	309				
12:45	29	333	192	1264	27	369	118	1333	310	2597
1:00	15	308			31	331				
1:15	27	333			15	353				
1:30	26	313			13	263				
1:45	22	317	90	1271	19	333	78	1280	168	2551
2:00	9	354			19	389				
2:15	12	339			8	289				
2:30	14	320			10	331				
2:45	12	323	47	1336	6	308	43	1317	90	2653
3:00	4	388			6	283				
3:15	9	380			7	345				
3:30	7	396			7	285				
3:45	9	369	29	1533	9	314	29	1227	58	2760
4:00	7	392			10	311				
4:15	8	399			17	330				
4:30	6	430			12	324				
4:45	5	485	26	1706	36	329	75	1294	101	3000
5:00	9	526			30	287				
5:15	22	573			63	377				
5:30	21	609			86	362				
5:45	38	570	90	2278	98	356	277	1382	367	3660
6:00	48	567			97	334				
6:15	52	525			98	340				
6:30	54	551			154	356				
6:45	90	474	244	2117	219	341	568	1371	812	3488
7:00	141	362			292	298				
7:15	157	374			328	313				
7:30	151	360			450	257				
7:45	216	320	665	1416	590	246	1660	1114	2325	2530
8:00	245	292			573	241				
8:15	229	305			576	273				
8:30	195	216			583	239				
8:45	229	273	898	1086	584	188	2316	941	3214	2027
9:00	244	272			446	195				
9:15	234	214			373	183				
9:30	255	212			381	165				
9:45	250	166	983	864	365	129	1565	672	2548	1536
10:00	197	162			268	107				
10:15	230	155			247	111				
10:30	249	108			302	95				
10:45	222	100	898	525	294	77	1111	390	2009	915
11:00	292	102			295	64				
11:15	247	64			265	54				
11:30	256	60			303	40				
11:45	267	57	1062	283	302	40	1165	198	2227	481
Totals	5224	15679			9005	12519				
Combined Totals		20903				21524				
ADT										42427
AM Peak Hour	1100	AM			745	AM				
Volume	1062				2322					
P.H.F.	0.909				0.984					
PM Peak Hour		515	PM			515	PM			
Volume		2319				1429				
P.H.F.		0.952				0.948				
Percentage	25.0%	75.0%			41.8%	58.2%				

Phone: 951-268-6268 counts@countsunlimited.com Phone: 951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

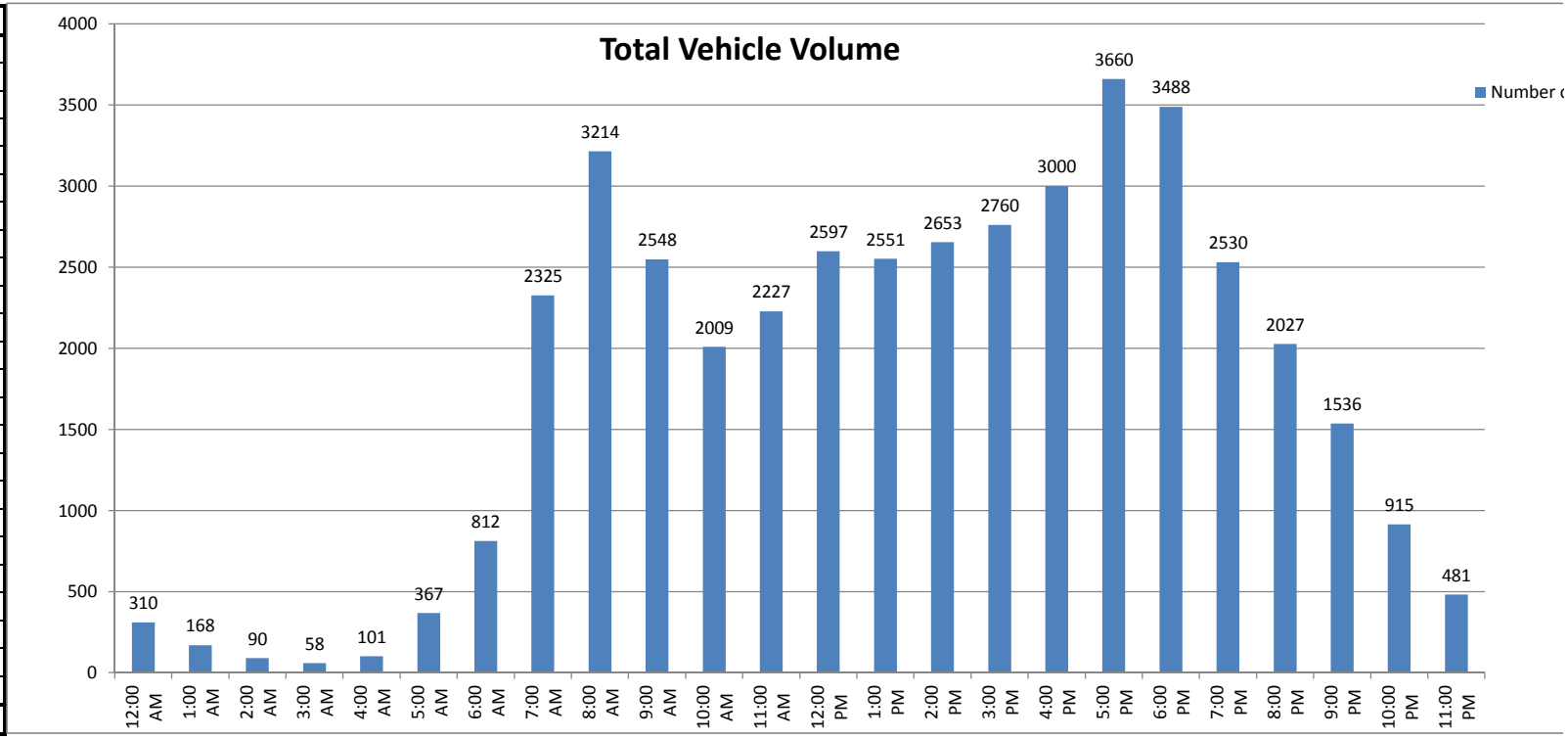
Culver Drive

B/ Barranca Parkway - Warner Avenue

6/4/2014

Southbound

Start Time	6/4/2014
12:00 AM	310
1:00 AM	168
2:00 AM	90
3:00 AM	58
4:00 AM	101
5:00 AM	367
6:00 AM	812
7:00 AM	2325
8:00 AM	3214
9:00 AM	2548
10:00 AM	2009
11:00 AM	2227
12:00 PM	2597
1:00 PM	2551
2:00 PM	2653
3:00 PM	2760
4:00 PM	3000
5:00 PM	3660
6:00 PM	3488
7:00 PM	2530
8:00 PM	2027
9:00 PM	1536
10:00 PM	915
11:00 PM	481
Total	42427



Volumes represent the combined totals for both directions

Phone: 951-268-6268
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PO Box 1178
Corona, CA 92878

City of Irvine
Culver Drive
B/ Alton Parkway - Barranca Parkway

File Name 099
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/12/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	42	361			26	386				
12:15	28	367			33	378				
12:30	32	346			34	388				
12:45	21	378	123	1452	30	443	123	1595	246	3047
1:00	21	363			14	432				
1:15	10	350			12	375				
1:30	17	380			12	391				
1:45	10	331	58	1424	15	404	53	1602	111	3026
2:00	9	401			13	329				
2:15	11	370			5	346				
2:30	8	347			4	369				
2:45	6	424	34	1542	6	361	28	1405	62	2947
3:00	15	408			5	348				
3:15	10	461			5	311				
3:30	6	434			13	354				
3:45	9	464	40	1767	2	344	25	1357	65	3124
4:00	6	485			17	340				
4:15	9	488			12	374				
4:30	13	501			24	344				
4:45	27	559	55	2033	31	377	84	1435	139	3468
5:00	23	524			42	404				
5:15	39	580			61	416				
5:30	52	625			74	416				
5:45	46	546	160	2275	86	407	263	1643	423	3918
6:00	68	514			76	401				
6:15	58	488			126	398				
6:30	90	484			184	373				
6:45	124	509	340	1995	241	370	627	1542	967	3537
7:00	166	535			316	368				
7:15	195	404			379	351				
7:30	265	395			546	339				
7:45	305	299	931	1633	610	326	1851	1384	2782	3017
8:00	284	329			566	317				
8:15	342	323			562	299				
8:30	282	268			529	277				
8:45	311	212	1219	1132	511	259	2168	1152	3387	2284
9:00	307	292			394	283				
9:15	311	202			375	225				
9:30	268	200			367	186				
9:45	247	155	1133	849	331	174	1467	868	2600	1717
10:00	243	188			313	157				
10:15	261	127			325	137				
10:30	266	101			312	86				
10:45	256	77	1026	493	329	95	1279	475	2305	968
11:00	304	65			310	83				
11:15	268	63			315	52				
11:30	351	54			352	46				
11:45	362	37	1285	219	347	48	1324	229	2609	448
Totals	6404	16814			9292	14687				
Combined Totals		23218				23979				
ADT										47197
AM Peak Hour	1100	AM			730	AM				
Volume	1285				2284					
P.H.F.	0.887				0.936					
PM Peak Hour		445	PM			500	PM			
Volume		2288				1643				
P.H.F.		0.915				0.987				
Percentage	27.6%	72.4%			38.8%	61.2%				

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

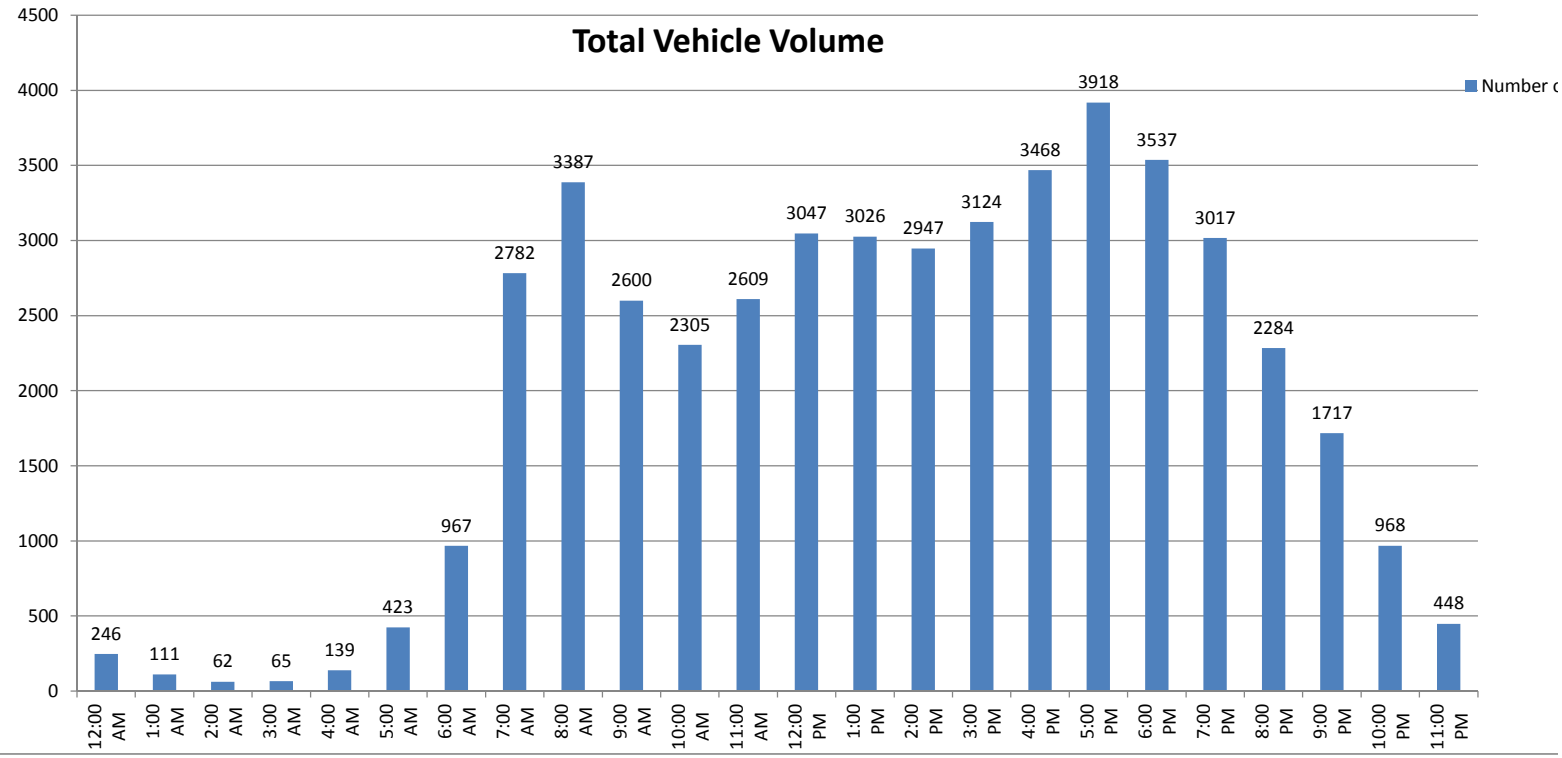
Culver Drive

B/ Alton Parkway - Barranca Parkway

3/12/2014

Southbound

Start Time	3/12/2014
12:00 AM	246
1:00 AM	111
2:00 AM	62
3:00 AM	65
4:00 AM	139
5:00 AM	423
6:00 AM	967
7:00 AM	2782
8:00 AM	3387
9:00 AM	2600
10:00 AM	2305
11:00 AM	2609
12:00 PM	3047
1:00 PM	3026
2:00 PM	2947
3:00 PM	3124
4:00 PM	3468
5:00 PM	3918
6:00 PM	3537
7:00 PM	3017
8:00 PM	2284
9:00 PM	1717
10:00 PM	968
11:00 PM	448
Total	47197



Volumes represent the combined totals for both directions

Phone: 951-268-6268
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Traffic and Vehicle Data Systems Unit

2013 All Traffic Volumes on CSHS

Home

Dist	Rte	CO	Post Mile		Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
11	54	SD	T	13.71	CHASE AVENUE	2100	23100	22900	1950	22600	22500
11	54	SD	T	14.179	GROVE RD	1950	22600	22500	1950	22600	22500
11	54	SD	T	14.212	END ROUTE 54	1950	22600	22500			
12	55	ORA		0	TUSTIN, FINLEY AVENUE				3800	56000	48500
12	55	ORA		0.267	JCT. RTE. 1	3800	56000	48500	4350	64000	55500
12	55	ORA		1.513	COSTA MESA, EAST 17TH STREET	4450	64000	55500	7000	100000	87500
12	55	ORA		1.82	COSTA MESA, HARBOR BOULEVARD	7000	100000	87500	5700	82000	71500
12	55	ORA		2.021	COSTA MESA, 19TH STREET	5700	82000	71500	6400	100000	94500
12	55	ORA	R	2.772	COSTA MESA, VICTORIA/22ND STREETS	6600	104000	98500	10000	140000	134000
12	55	ORA	R	4.022	COSTA MESA, MESA DRIVE	10000	140000	134000	11800	158000	153400
12	55	ORA	R	5.99	JCT. RTE. 405, SAN DIEGO FREEWAY	11800	159000	154500	12300	166000	161200
12	55	ORA	R	6.99	SANTA ANA, MAC ARTHUR BOULEVARD	21500	289000	281000	21400	292000	281000
12	55	ORA	R	7.85	SANTA ANA, DYER ROAD	20700	282000	271500	21900	305000	287900
12	55	ORA	R	9.437	SANTA ANA, EDINGER AVENUE	21800	304000	287000	22400	319000	303000
12	55	ORA	R	9.96	TUSTIN, MC FADDEN STREET	22400	319000	303000	21200	302000	287000
12	55	ORA		10.45	TUSTIN, JCT. RTE. 5	19100	275000	260500	18800	254000	238500
12	55	ORA		10.979	SANTA ANA, FOURTH STREET	18800	254000	238500	20500	277000	259000
12	55	ORA		11.785	TUSTIN, SEVENTEENTH STREET	20500	277000	259000	19800	268000	250000
12	55	ORA		12.967	JCT. RTE. 22 WEST	19800	268000	250000	20800	281000	262500
12	55	ORA		13.7	CHAPMAN AVENUE	20800	281000	262500	18100	246000	230000
12	55	ORA		15.242	ORANGE, KATELLA AVENUE	18100	246000	230000	17100	228000	214000
12	55	ORA		16.981	ORANGE, LINCOLN AVENUE	17100	228000	214000	17200	230000	215100
12	55	ORA	R	17.876	JCT. RTE. 91	17200	230000	215100			
11	56	SD		0	JCT. RTE . 5				4450	58000	56000

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : WALNUT AVENUE
Segment : E/O TUSTIN RANCH ROAD
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	5	18	195	847	24	79	254	779	29	97	449	1,626
12:15	3		198		18		172		21		370	
12:30	8		210		17		182		25		392	
12:45	2		244		20		171		22		415	
01:00	4	15	216	762	28	57	188	725	32	72	404	1,487
01:15	5		210		14		190		19		400	
01:30	1		184		9		203		10		387	
01:45	5		152		6		144		11		296	
02:00	3	25	160	617	13	29	162	815	16	54	322	1,432
02:15	8		173		4		182		12		355	
02:30	6		130		7		282		13		412	
02:45	8		154		5		189		13		343	
03:00	7	68	152	574	7	17	306	1,101	14	85	458	1,675
03:15	3		174		2		223		5		397	
03:30	16		120		2		320		18		440	
03:45	42		128		6		252		48		380	
04:00	58	254	129	582	12	32	441	1,607	70	286	570	2,189
04:15	54		150		12		316		66		466	
04:30	39		146		7		440		46		586	
04:45	103		157		1		410		104		567	
05:00	64	450	178	696	18	90	418	1,586	82	540	596	2,282
05:15	92		182		18		401		110		583	
05:30	112		160		26		445		138		605	
05:45	182		176		28		322		210		498	
06:00	134	957	132	574	48	244	318	1,056	182	1,201	450	1,630
06:15	225		168		46		260		271		428	
06:30	289		144		78		246		367		390	
06:45	309		130		72		232		381		362	
07:00	290	1,278	110	370	78	440	204	630	368	1,718	314	1,000
07:15	294		110		96		161		390		271	
07:30	308		80		126		147		434		227	
07:45	386		70		140		118		526		188	
08:00	315	1,217	76	261	138	509	121	417	453	1,726	197	678
08:15	320		73		122		100		442		173	
08:30	286		56		130		102		416		158	
08:45	296		56		119		94		415		150	
09:00	218	781	56	165	105	417	91	274	323	1,198	147	439
09:15	202		45		97		69		299		114	
09:30	165		34		121		60		286		94	
09:45	196		30		94		54		290		84	
10:00	171	547	33	85	100	464	78	210	271	1,011	111	295
10:15	136		18		114		48		250		66	
10:30	112		24		118		52		230		76	
10:45	128		10		132		32		260		42	
11:00	122	594	15	51	182	756	35	95	304	1,350	50	146
11:15	170		16		162		26		332		42	
11:30	136		14		210		21		346		35	
11:45	166		6		202		13		368		19	
Totals	6,204		5,584		3,134		9,295		9,338		14,879	
Split%	66.4		37.5		33.6		62.5					
Day Totals		11,788				12,429				24,217		
Day Splits		48.7				51.3						
Peak Hour	07:30		12:30		11:00		04:45		07:30		04:45	
Volume	1,329		880		756		1,674		1,855		2,351	
Factor	0.86		0.90		0.90		0.94		0.88		0.97	

* Data File : D1405097

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Walnut Avenue
B/ Myford Road - Jamboree Road

File Name 313
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
3/19/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	9	183			6	148				
12:15	3	161			10	150				
12:30	10	155			6	156				
12:45	5	167	27	666	3	180	25	634	52	1300
1:00	1	170			4	186				
1:15	1	161			3	154				
1:30	2	158			1	154				
1:45	3	128	7	617	3	149	11	643	18	1260
2:00	5	122			3	138				
2:15	2	136			4	130				
2:30	4	139			2	133				
2:45	1	124	12	521	1	115	10	516	22	1037
3:00	3	163			3	175				
3:15	3	137			2	169				
3:30	0	186			3	161				
3:45	5	156	11	642	5	175	13	680	24	1322
4:00	2	232			6	181				
4:15	6	173			10	192				
4:30	5	254			9	209				
4:45	18	236	31	895	25	201	50	783	81	1678
5:00	12	375			20	214				
5:15	10	273			20	211				
5:30	18	272			40	245				
5:45	31	226	71	1146	58	246	138	916	209	2062
6:00	19	234			70	216				
6:15	34	186			94	242				
6:30	66	225			94	156				
6:45	56	136	175	781	131	141	389	755	564	1536
7:00	83	147			129	134				
7:15	72	145			149	119				
7:30	130	105			201	102				
7:45	124	124	409	521	212	108	691	463	1100	984
8:00	101	142			243	65				
8:15	117	74			227	70				
8:30	122	67			242	58				
8:45	149	59	489	342	202	57	914	250	1403	592
9:00	121	73			193	59				
9:15	115	50			150	49				
9:30	90	39			131	33				
9:45	100	29	426	191	119	32	593	173	1019	364
10:00	96	35			121	36				
10:15	100	26			110	23				
10:30	109	17			115	29				
10:45	98	24	403	102	117	16	463	104	866	206
11:00	124	20			112	21				
11:15	138	11			114	15				
11:30	153	7			101	12				
11:45	178	7	593	45	173	10	500	58	1093	103
Totals	2654	6469			3797	5975				
Combined Totals		9123				9772				
ADT										18895
AM Peak Hour	1100	AM			745	AM				
Volume	593				924					
P.H.F.	0.833				0.951					
PM Peak Hour		445	PM			530	PM			
Volume		1156				949				
P.H.F.		0.771				0.964				
Percentage	29.1%	70.9%			38.9%	61.1%				

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

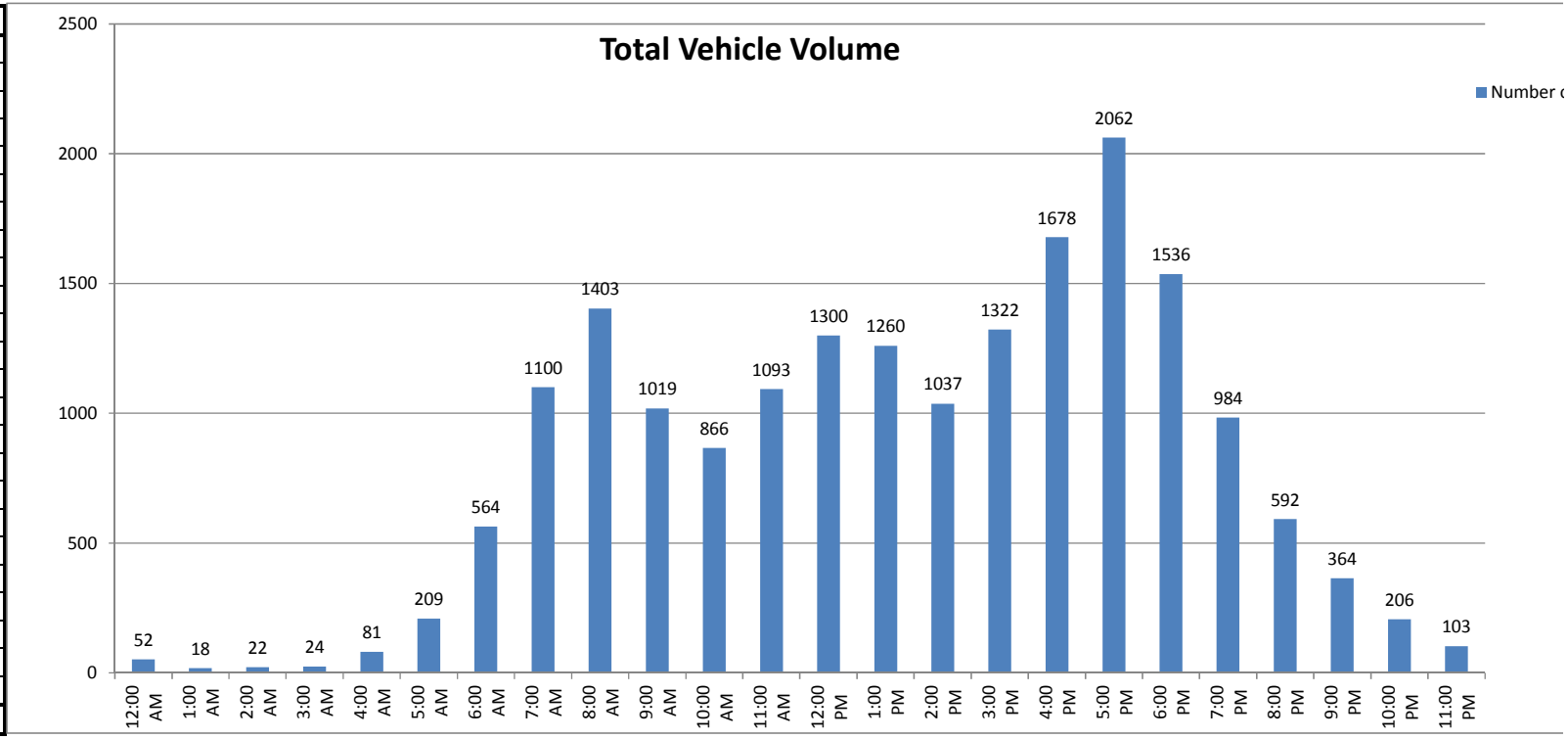
Walnut Avenue

B/ Myford Road - Jamboree Road

3/19/2014

Westbound

Start Time	3/19/2014
12:00 AM	52
1:00 AM	18
2:00 AM	22
3:00 AM	24
4:00 AM	81
5:00 AM	209
6:00 AM	564
7:00 AM	1100
8:00 AM	1403
9:00 AM	1019
10:00 AM	866
11:00 AM	1093
12:00 PM	1300
1:00 PM	1260
2:00 PM	1037
3:00 PM	1322
4:00 PM	1678
5:00 PM	2062
6:00 PM	1536
7:00 PM	984
8:00 PM	592
9:00 PM	364
10:00 PM	206
11:00 PM	103
Total	18895



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Phone: 951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Walnut Avenue
B/ Jamboree Road - Harvard Avenue

File Name 314
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
3/20/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	20	168			8	106				
12:15	15	135			7	142				
12:30	14	133			4	160				
12:45	8	116	57	552	3	176	22	584	79	1136
1:00	8	138			3	139				
1:15	8	140			2	136				
1:30	8	125			5	131				
1:45	3	103	27	506	3	158	13	564	40	1070
2:00	10	102			4	139				
2:15	4	126			4	134				
2:30	0	123			4	113				
2:45	7	125	21	476	1	123	13	509	34	985
3:00	1	122			4	130				
3:15	0	163			2	166				
3:30	3	156			4	171				
3:45	3	162	7	603	9	170	19	637	26	1240
4:00	0	183			7	160				
4:15	3	195			7	196				
4:30	5	196			15	202				
4:45	12	200	20	774	16	196	45	754	65	1528
5:00	11	261			24	177				
5:15	14	272			36	233				
5:30	15	247			39	230				
5:45	15	246	55	1026	47	228	146	868	201	1894
6:00	14	212			62	200				
6:15	19	226			45	214				
6:30	51	236			96	181				
6:45	38	172	122	846	121	165	324	760	446	1606
7:00	50	161			109	145				
7:15	61	180			160	162				
7:30	74	167			219	150				
7:45	95	133	280	641	222	122	710	579	990	1220
8:00	85	140			267	100				
8:15	62	110			256	84				
8:30	79	123			270	91				
8:45	86	106	312	479	267	82	1060	357	1372	836
9:00	84	122			190	88				
9:15	70	88			150	59				
9:30	66	63			130	50				
9:45	87	78	307	351	140	35	610	232	917	583
10:00	76	59			121	81				
10:15	76	56			111	54				
10:30	83	41			108	37				
10:45	95	37	330	193	88	17	428	189	758	382
11:00	63	25			108	25				
11:15	104	18			105	22				
11:30	123	24			118	18				
11:45	123	25	413	92	121	18	452	83	865	175
Totals	1951	6539			3842	6116				
Combined Totals		8490				9958				
ADT										18448
AM Peak Hour	1100	AM			800	AM				
Volume	413				1060					
P.H.F.	0.839				0.981					
PM Peak Hour		500	PM			515	PM			
Volume		1026				891				
P.H.F.		0.943				0.956				
Percentage	23.0%	77.0%			38.6%	61.4%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

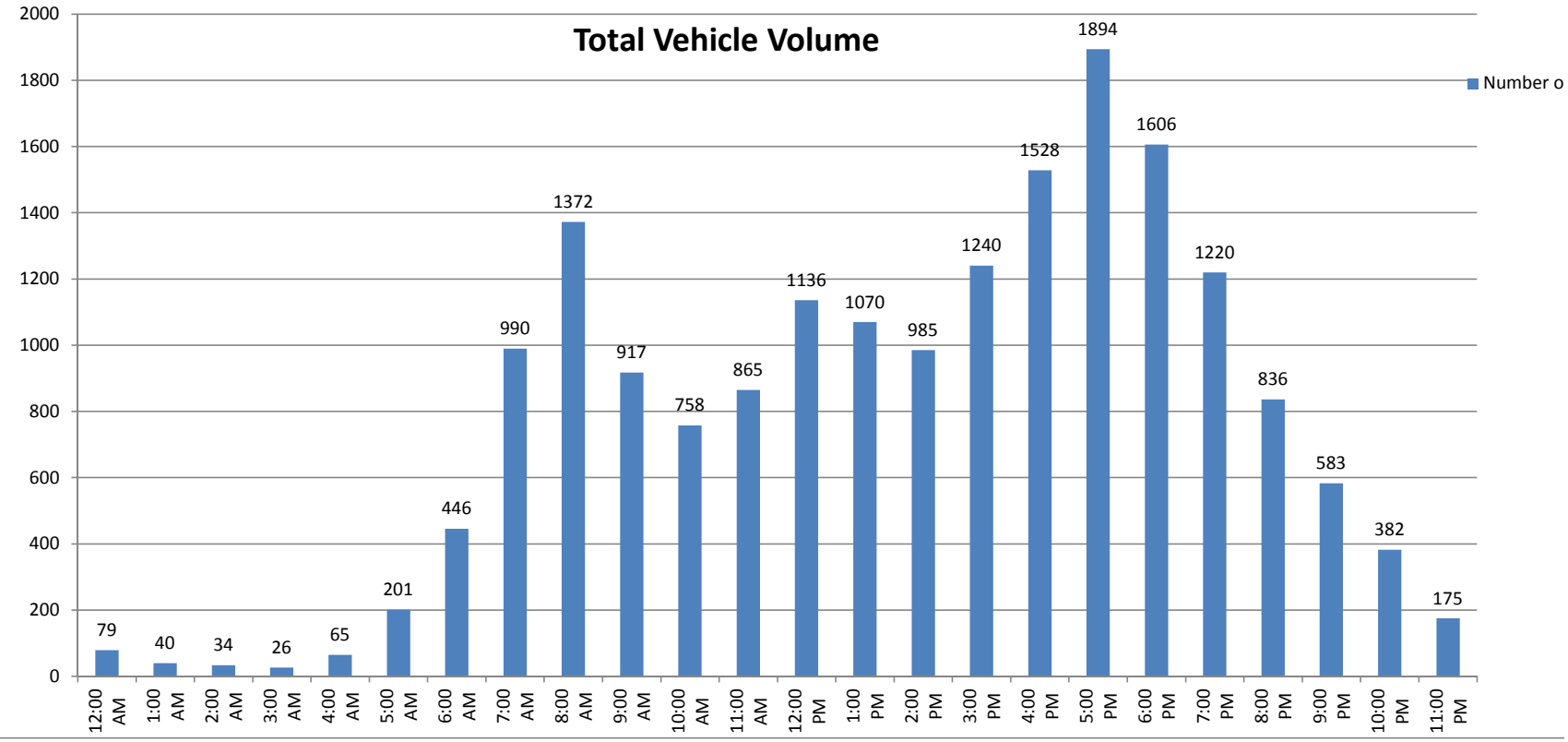
24 Hour Volume Plot

Walnut Avenue
B/ Jamboree Road - Harvard Avenue

3/20/2014

Westbound

Start Time	3/20/2014
12:00 AM	79
1:00 AM	40
2:00 AM	34
3:00 AM	26
4:00 AM	65
5:00 AM	201
6:00 AM	446
7:00 AM	990
8:00 AM	1372
9:00 AM	917
10:00 AM	758
11:00 AM	865
12:00 PM	1136
1:00 PM	1070
2:00 PM	985
3:00 PM	1240
4:00 PM	1528
5:00 PM	1894
6:00 PM	1606
7:00 PM	1220
8:00 PM	836
9:00 PM	583
10:00 PM	382
11:00 PM	175
Total	18448



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Walnut Avenue
B/ Harvard Avenue - Culver Drive

File Name 315
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
3/20/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	11	169			10	106				
12:15	4	132			7	140				
12:30	7	126			1	157				
12:45	2	121	24	548	5	161	23	564	47	1112
1:00	5	136			5	141				
1:15	4	128			5	122				
1:30	4	118			10	132				
1:45	3	104	16	486	2	169	22	564	38	1050
2:00	4	118			5	132				
2:15	1	117			4	126				
2:30	1	123			3	127				
2:45	7	136	13	494	1	109	13	494	26	988
3:00	0	112			3	164				
3:15	1	151			1	154				
3:30	2	162			6	191				
3:45	3	141	6	566	6	186	16	695	22	1261
4:00	0	165			5	176				
4:15	3	164			3	186				
4:30	4	168			4	198				
4:45	8	182	15	679	7	201	19	761	34	1440
5:00	10	200			9	178				
5:15	13	236			13	270				
5:30	19	237			15	242				
5:45	18	228	60	901	22	214	59	904	119	1805
6:00	21	221			38	209				
6:15	23	238			32	203				
6:30	45	212			52	158				
6:45	57	160	146	831	79	146	201	716	347	1547
7:00	65	154			82	151				
7:15	68	160			121	166				
7:30	129	153			181	151				
7:45	158	101	420	568	204	93	588	561	1008	1129
8:00	111	108			255	98				
8:15	96	89			214	97				
8:30	84	93			218	110				
8:45	98	85	389	375	217	86	904	391	1293	766
9:00	95	106			176	82				
9:15	82	60			132	50				
9:30	63	45			104	51				
9:45	84	43	324	254	118	35	530	218	854	472
10:00	80	52			86	63				
10:15	78	43			91	39				
10:30	83	32			80	30				
10:45	96	20	337	147	80	17	337	149	674	296
11:00	83	17			91	28				
11:15	95	9			87	10				
11:30	143	16			114	17				
11:45	116	10	437	52	113	13	405	68	842	120
Totals	2187	5901			3117	6085				
Combined Totals		8088				9202				
ADT										17290
AM Peak Hour	730	AM			800	AM				
Volume	494				904					
P.H.F.	0.782				0.886					
PM Peak Hour		530	PM			515	PM			
Volume		924				935				
P.H.F.		0.971				0.866				
Percentage	27.0%	73.0%			33.9%	66.1%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

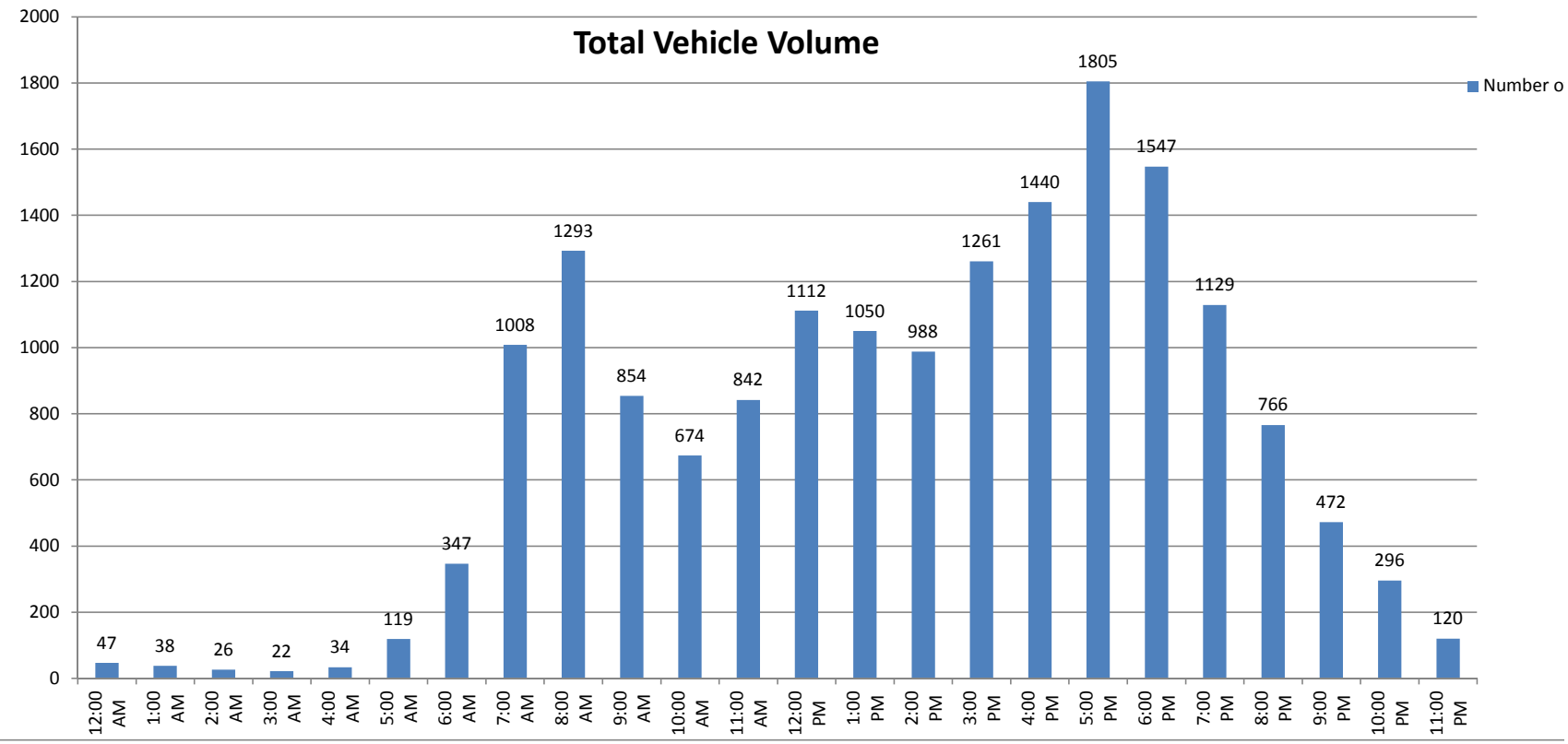
Walnut Avenue

B/ Harvard Avenue - Culver Drive

3/20/2014

Westbound

Start Time	3/20/2014
12:00 AM	47
1:00 AM	38
2:00 AM	26
3:00 AM	22
4:00 AM	34
5:00 AM	119
6:00 AM	347
7:00 AM	1008
8:00 AM	1293
9:00 AM	854
10:00 AM	674
11:00 AM	842
12:00 PM	1112
1:00 PM	1050
2:00 PM	988
3:00 PM	1261
4:00 PM	1440
5:00 PM	1805
6:00 PM	1547
7:00 PM	1129
8:00 PM	766
9:00 PM	472
10:00 PM	296
11:00 PM	120
Total	17290



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Fax: 951-268-6267

Transportation Studies, Inc.

2640 Walnut Avenue, Suite H

Tustin, CA. 92780

Location: : EDINGER AVENUE
Segment: : W/O NEWPORT AVENUE
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 09/30/14

Day: Tuesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	36	104	288	1,268	25	63	243	990	61	167	531	2,258
12:15	30		326		16		234		46		560	
12:30	17		320		14		253		31		573	
12:45	21		334		8		260		29		594	
01:00	24	64	302	1,214	5	56	275	973	29	120	577	2,187
01:15	11		306		15		232		26		538	
01:30	20		294		26		240		46		534	
01:45	9		312		10		226		19		538	
02:00	30	64	328	1.335	12	38	254	1.165	42	102	582	2.500
02:15	3		308		6		259		9		567	
02:30	12		384		10		331		22		715	
02:45	19		315		10		321		29		636	
03:00	12	91	351	1,390	15	47	309	1,267	27	138	660	2,657
03:15	14		324		4		292		18		616	
03:30	27		382		18		354		45		736	
03:45	38		333		10		312		48		645	
04:00	40	301	366	1,420	9	78	351	1,405	49	379	717	2,825
04:15	53		348		9		353		62		701	
04:30	102		372		22		350		124		722	
04:45	106		334		38		351		144		685	
05:00	132	1,010	418	1,657	32	262	368	1,447	164	1,272	786	3,104
05:15	210		437		52		374		262		811	
05:30	328		418		62		374		390		792	
05:45	340		384		116		331		456		715	
06:00	234	1,300	340	1,141	102	637	256	1,028	336	1,937	596	2,169
06:15	276		298		129		318		405		616	
06:30	396		264		146		268		542		532	
06:45	394		239		260		186		654		425	
07:00	366	1.599	208	805	245	1.274	155	547	611	2.873	363	1.352
07:15	414		215		298		132		712		347	
07:30	424		212		341		134		765		346	
07:45	395		170		390		126		785		296	
08:00	398	1,404	190	607	349	1,428	116	365	747	2,832	306	972
08:15	344		140		354		97		698		237	
08:30	332		142		384		82		716		224	
08:45	330		135		341		70		671		205	
09:00	290	1,087	106	431	278	1,020	64	277	568	2,107	170	708
09:15	267		105		280		84		547		189	
09:30	264		114		227		68		491		182	
09:45	266		106		235		61		501		167	
10:00	256	1,016	93	307	194	776	83	258	450	1,792	176	565
10:15	245		70		186		68		431		138	
10:30	268		90		202		57		470		147	
10:45	247		54		194		50		441		104	
11:00	284	1,247	46	169	206	866	47	129	490	2,113	93	298
11:15	318		44		200		36		518		80	
11:30	316		46		200		20		516		66	
11:45	329		33		260		26		589		59	
Totals	9.287		11.744		6.545		9.851		15.832		21.595	
Split%	58.7		54.4		41.3		45.6					
Day Totals		21,031				16,396				37,427		
Day Splits		56.2				43.8						
Peak Hour	07:15		05:00		07:45		04:45		07:15		05:00	
Volume	1.631		1.657		1.477		1.467		3.009		3.104	
Factor	0.96		0.95		0.95		0.98		0.96		0.96	

Data File : D1410019

Printed : 10/2/2014

Transportation Studies, Inc.

2640 Walnut Avenue, Suite H

Tustin, CA. 92780

Location : EDINGER AVENUE — Site: TUSTIN

Segment : NEWPORT AVE TO DEL AMO AVE — Date: 10/07/14

Client : CITY OF TUSTIN

Day: Tuesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	6	31	178	660	26	76	145	603	32	107	323	1,263
12:15	10		150		20		142		30		292	
12:30	10		169		14		152		24		321	
12:45	5		163		16		164		21		327	
01:00	12	37	158	630	6	28	178	657	18	65	336	1,287
01:15	9		159		9		162		18		321	
01:30	10		138		9		152		19		290	
01:45	6		175		4		165		10		340	
02:00	8	20	168	665	9	27	204	910	17	47	372	1.575
02:15	2		144		6		210		8		354	
02:30	2		182		6		250		8		432	
02:45	8		171		6		246		14		417	
03:00	4	34	211	835	3	26	225	1,043	7	60	436	1,878
03:15	4		170		6		282		10		452	
03:30	14		228		10		254		24		482	
03:45	12		226		7		282		19		508	
04:00	9	103	245	976	5	59	309	1,162	14	162	554	2,138
04:15	16		246		7		263		23		509	
04:30	30		241		12		300		42		541	
04:45	48		244		35		290		83		534	
05:00	62	414	394	1,389	23	154	292	1,208	85	568	686	2,597
05:15	94		346		26		342		120		688	
05:30	124		342		33		318		157		660	
05:45	134		307		72		256		206		563	
06:00	118	627	254	762	62	502	241	982	180	1,129	495	1,744
06:15	149		219		116		282		265		501	
06:30	166		161		120		261		286		422	
06:45	194		128		204		198		398		326	
07:00	181	916	121	405	192	1.029	150	514	373	1.945	271	919
07:15	244		99		230		160		474		259	
07:30	255		100		256		100		511		200	
07:45	236		85		351		104		587		189	
08:00	220	808	79	269	293	1,223	101	325	513	2,031	180	594
08:15	207		74		312		78		519		152	
08:30	196		62		326		88		522		150	
08:45	185		54		292		58		477		112	
09:00	140	542	46	175	232	717	49	223	372	1,259	95	398
09:15	134		41		179		70		313		111	
09:30	125		52		166		54		291		106	
09:45	143		36		140		50		283		86	
10:00	140	544	41	95	124	510	62	210	264	1,054	103	305
10:15	118		25		137		56		255		81	
10:30	158		12		118		42		276		54	
10:45	128		17		131		50		259		67	
11:00	138	611	23	83	130	543	36	107	268	1,154	59	190
11:15	132		22		137		27		269		49	
11:30	159		18		142		20		301		38	
11:45	182		20		134		24		316		44	
Totals	4.687		6.944		4.894		7.944		9.581		14.888	
Split%	48.9		46.6		51.1		53.4					
Day Totals		11.631				12.838				24.469		
Day Splits		47.5				52.5						
Peak Hour	07:15		05:00		07:45		04:45		07:45		05:00	
Volume	955		1.389		1.282		1.242		2.141		2.597	
Factor	0.94		0.88		0.91		0.91		0.91		0.94	

Data File : D1410031 — Printed : 10/13/2014

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

Location : EDINGER AVENUE
Segment : W/O REDHILL AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	10	42	168	652	22	63	180	759	32	105	348	1,411
12:15	8		160		18		198		26		358	
12:30	16		166		11		198		27		364	
12:45	8		158		12		183		20		341	
01:00	6	20	145	595	12	37	160	747	18	57	305	1,342
01:15	7		155		12		190		19		345	
01:30	3		141		8		177		11		318	
01:45	4		154		5		220		9		374	
02:00	3	22	148	635	10	28	212	957	13	50	360	1,592
02:15	10		158		7		208		17		366	
02:30	5		158		7		238		12		396	
02:45	4		171		4		299		8		470	
03:00	5	36	160	701	4	24	275	1,208	9	60	435	1,909
03:15	8		176		7		316		15		492	
03:30	13		182		5		311		18		493	
03:45	10		183		8		306		18		489	
04:00	12	114	213	949	10	56	363	1,356	22	170	576	2,305
04:15	27		230		12		336		39		566	
04:30	38		226		16		330		54		556	
04:45	37		280		18		327		55		607	
05:00	68	475	296	1,178	24	168	325	1,389	92	643	621	2,567
05:15	90		334		24		380		114		714	
05:30	165		296		62		388		227		684	
05:45	152		252		58		296		210		548	
06:00	106	612	206	677	82	531	374	1,226	188	1,143	580	1,903
06:15	138		198		123		342		261		540	
06:30	176		142		135		294		311		436	
06:45	192		131		191		216		383		347	
07:00	190	935	122	414	171	1,303	190	559	361	2,238	312	973
07:15	242		108		348		132		590		240	
07:30	241		101		360		140		601		241	
07:45	262		83		424		97		686		180	
08:00	228	884	90	340	335	1,244	102	362	563	2,128	192	702
08:15	230		92		331		96		561		188	
08:30	203		84		296		96		499		180	
08:45	223		74		282		68		505		142	
09:00	168	616	74	248	236	814	69	254	404	1,430	143	502
09:15	162		54		213		82		375		136	
09:30	138		64		186		53		324		117	
09:45	148		56		179		50		327		106	
10:00	122	529	53	146	148	536	62	210	270	1,065	115	356
10:15	141		39		125		65		266		104	
10:30	134		23		128		50		262		73	
10:45	132		31		135		33		267		64	
11:00	140	596	28	66	134	574	30	94	274	1,170	58	160
11:15	136		13		152		24		288		37	
11:30	142		16		142		24		284		40	
11:45	178		9		146		16		324		25	
Totals	4,881		6,601		5,378		9,121		10,259		15,722	
Split%	47.6		42.0		52.4		58.0					
Day Totals		11,482				14,499				25,981		
Day Splits		44.2				55.8						
Peak Hour	07:15		04:45		07:15		05:15		07:15		04:45	
Volume	973		1,206		1,467		1,438		2,440		2,626	
Factor	0.93		0.90		0.86		0.93		0.89		0.92	

* Data File : D1405066

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : REDHILL AVENUE
Segment : E/O REDHILL AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	9	36	124	494	21	55	130	591	30	91	254	1,085
12:15	7		134		14		163		21		297	
12:30	12		118		10		166		22		284	
12:45	8		118		10		132		18		250	
01:00	6	17	124	465	7	29	149	615	13	46	273	1,080
01:15	3		106		11		152		14		258	
01:30	5		111		6		136		11		247	
01:45	3		124		5		178		8		302	
02:00	3	20	134	501	8	25	156	706	11	45	290	1,207
02:15	8		119		7		152		15		271	
02:30	5		108		8		162		13		270	
02:45	4		140		2		236		6		376	
03:00	3	28	130	555	4	19	226	1,086	7	47	356	1,641
03:15	3		141		5		292		8		433	
03:30	15		150		3		288		18		438	
03:45	7		134		7		280		14		414	
04:00	7	78	196	825	6	40	320	1,321	13	118	516	2,146
04:15	19		194		10		366		29		560	
04:30	20		198		11		292		31		490	
04:45	32		237		13		343		45		580	
05:00	48	289	238	1,066	13	149	278	1,352	61	438	516	2,418
05:15	65		300		23		384		88		684	
05:30	94		268		51		350		145		618	
05:45	82		260		62		340		144		600	
06:00	66	431	186	656	74	480	326	1,172	140	911	512	1,828
06:15	94		202		118		340		212		542	
06:30	137		142		130		296		267		438	
06:45	134		126		158		210		292		336	
07:00	124	672	106	359	177	1,183	185	516	301	1,855	291	875
07:15	171		92		290		118		461		210	
07:30	172		95		338		118		510		213	
07:45	205		66		378		95		583		161	
08:00	174	732	70	289	344	1,220	83	263	518	1,952	153	552
08:15	186		76		359		57		545		133	
08:30	181		72		246		65		427		137	
08:45	191		71		271		58		462		129	
09:00	136	436	50	185	205	656	68	219	341	1,092	118	404
09:15	112		40		174		57		286		97	
09:30	94		48		154		52		248		100	
09:45	94		47		123		42		217		89	
10:00	84	386	50	134	102	441	54	178	186	827	104	312
10:15	94		34		110		50		204		84	
10:30	117		24		114		52		231		76	
10:45	91		26		115		22		206		48	
11:00	114	455	28	64	91	440	22	78	205	895	50	142
11:15	108		13		108		18		216		31	
11:30	100		11		124		20		224		31	
11:45	133		12		117		18		250		30	
Totals	3,580		5,593		4,737		8,097		8,317		13,690	
Split%	43.0		40.9		57.0		59.1					
Day Totals		9,173				12,834				22,007		
Day Splits		41.7				58.3						
Peak Hour	07:45		05:00		07:30		05:15		07:30		05:00	
Volume	746		1,066		1,419		1,400		2,156		2,418	
Factor	0.91		0.89		0.94		0.91		0.92		0.88	

* Data File : D1405067

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

Location: : EDINGER AVENUE
Segment: : W/O SB JAMBOREE RAMPS
Client: : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	8	43	179	661	19	59	142	606	27	102	321	1,267
12:15	9		160		16		168		25		328	
12:30	9		156		12		166		21		322	
12:45	17		166		12		130		29		296	
01:00	14	29	150	593	6	30	150	635	20	59	300	1,228
01:15	3		139		13		161		16		300	
01:30	5		150		7		148		12		298	
01:45	7		154		4		176		11		330	
02:00	5	22	138	643	9	26	152	719	14	48	290	1,362
02:15	8		172		5		145		13		317	
02:30	6		155		6		162		12		317	
02:45	3		178		6		260		9		438	
03:00	3	30	201	807	3	26	248	1,169	6	56	449	1,976
03:15	6		192		6		304		12		496	
03:30	14		216		3		299		17		515	
03:45	7		198		14		318		21		516	
04:00	8	86	237	1,175	13	49	366	1,499	21	135	603	2,674
04:15	22		280		8		422		30		702	
04:30	28		300		10		315		38		615	
04:45	28		358		18		396		46		754	
05:00	42	285	397	1,638	20	226	379	1,602	62	511	776	3,240
05:15	68		412		74		456		142		868	
05:30	99		439		40		387		139		826	
05:45	76		390		92		380		168		770	
06:00	94	566	288	1,028	108	600	370	1,307	202	1,166	658	2,335
06:15	94		266		130		390		224		656	
06:30	160		214		166		317		326		531	
06:45	218		260		196		230		414		490	
07:00	166	927	180	566	244	1,430	205	559	410	2,357	385	1,125
07:15	241		126		330		132		571		258	
07:30	242		151		400		118		642		269	
07:45	278		109		456		104		734		213	
08:00	258	957	98	402	399	1,354	91	320	657	2,311	189	722
08:15	228		122		368		72		596		194	
08:30	228		90		295		78		523		168	
08:45	243		92		292		79		535		171	
09:00	196	630	72	256	219	730	78	260	415	1,360	150	516
09:15	158		72		185		67		343		139	
09:30	132		65		172		67		304		132	
09:45	144		47		154		48		298		95	
10:00	112	466	76	215	122	477	58	181	234	943	134	396
10:15	114		57		129		52		243		109	
10:30	126		48		112		47		238		95	
10:45	114		34		114		24		228		58	
11:00	125	565	30	89	111	496	24	97	236	1,061	54	186
11:15	144		26		120		24		264		50	
11:30	136		17		139		23		275		40	
11:45	160		16		126		26		286		42	
Totals	4,606		8,073		5,503		8,954		10,109		17,027	
Split%	45.6		47.4		54.4		52.6					
Day Totals		12,679				14,457				27,136		
Day Splits		46.7				53.3						
Peak Hour	07:15		05:00		07:30		04:45		07:30		05:00	
Volume	1,019		1,638		1,623		1,618		2,629		3,240	
Factor	0.92		0.93		0.89		0.89		0.90		0.93	

Data File : D1405068

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : EDINGER AVENUE
Segment : E/O JAMBOREE NB RAMPS
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	11	54	148	568	18	56	126	564	29	110	274	1,132
12:15	16		146		14		156		30		302	
12:30	9		132		12		154		21		286	
12:45	18		142		12		128		30		270	
01:00	15	30	128	526	5	22	156	610	20	52	284	1,136
01:15	5		137		9		140		14		277	
01:30	4		128		5		144		9		272	
01:45	6		133		3		170		9		303	
02:00	12	32	118	476	6	24	183	745	18	56	301	1,221
02:15	7		104		5		160		12		264	
02:30	10		122		9		186		19		308	
02:45	3		132		4		216		7		348	
03:00	1	25	162	717	6	19	226	949	7	44	388	1,666
03:15	5		188		5		240		10		428	
03:30	9		180		3		225		12		405	
03:45	10		187		5		258		15		445	
04:00	4	56	185	920	14	62	266	1,272	18	118	451	2,192
04:15	14		220		8		410		22		630	
04:30	16		245		18		238		34		483	
04:45	22		270		22		358		44		628	
05:00	30	211	358	1,364	17	172	306	1,384	47	383	664	2,748
05:15	52		346		48		368		100		714	
05:30	73		326		42		324		115		650	
05:45	56		334		65		386		121		720	
06:00	52	358	296	1,017	68	462	328	1,221	120	820	624	2,238
06:15	60		265		122		390		182		655	
06:30	102		238		116		266		218		504	
06:45	144		218		156		237		300		455	
07:00	132	694	173	598	174	1,080	173	657	306	1,774	346	1,255
07:15	159		136		248		185		407		321	
07:30	197		151		306		147		503		298	
07:45	206		138		352		152		558		290	
08:00	189	733	109	463	348	1,170	114	416	537	1,903	223	879
08:15	184		135		313		101		497		236	
08:30	168		109		268		107		436		216	
08:45	192		110		241		94		433		204	
09:00	164	517	88	334	192	697	87	302	356	1,214	175	636
09:15	131		94		197		70		328		164	
09:30	112		82		162		88		274		170	
09:45	110		70		146		57		256		127	
10:00	87	379	84	258	102	466	55	201	189	845	139	459
10:15	96		72		118		68		214		140	
10:30	96		54		116		51		212		105	
10:45	100		48		130		27		230		75	
11:00	108	467	42	119	112	471	24	93	220	938	66	212
11:15	108		31		114		24		222		55	
11:30	122		23		132		24		254		47	
11:45	129		23		113		21		242		44	
Totals	3,556		7,360		4,701		8,414		8,257		15,774	
Split%	43.1		46.7		56.9		53.3					
Day Totals		10,916				13,115				24,031		
Day Splits		45.4				54.6						
Peak Hour	07:30		05:00		07:30		05:30		07:30		05:00	
Volume	776		1,364		1,319		1,428		2,095		2,748	
Factor	0.94		0.95		0.94		0.92		0.94		0.95	

Data File : D1405069

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Irvine Center Drive
B/ Harvard Avenue - Culver Drive

File Name 138
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/26/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	7	163			23	156				
12:15	10	173			11	168				
12:30	3	148			12	194				
12:45	8	159	28	643	3	202	49	720	77	1363
1:00	4	154			10	168				
1:15	4	155			6	167				
1:30	7	145			6	174				
1:45	4	140	19	594	5	168	27	677	46	1271
2:00	4	142			7	210				
2:15	6	146			5	162				
2:30	6	151			9	201				
2:45	6	187	22	626	5	235	26	808	48	1434
3:00	0	191			4	239				
3:15	4	206			2	269				
3:30	7	174			1	254				
3:45	5	200	16	771	4	255	11	1017	27	1788
4:00	7	222			11	304				
4:15	14	232			6	349				
4:30	27	258			10	330				
4:45	24	267	72	979	15	341	42	1324	114	2303
5:00	28	293			19	330				
5:15	63	393			46	406				
5:30	74	351			37	399				
5:45	74	367	239	1404	55	339	157	1474	396	2878
6:00	56	285			61	302				
6:15	67	286			79	373				
6:30	111	242			96	290				
6:45	149	262	383	1075	124	231	360	1196	743	2271
7:00	134	147			146	192				
7:15	157	157			206	183				
7:30	245	147			246	168				
7:45	248	114	784	565	358	106	956	649	1740	1214
8:00	246	109			338	106				
8:15	199	108			333	103				
8:30	217	107			290	127				
8:45	206	85	868	409	231	83	1192	419	2060	828
9:00	188	72			190	91				
9:15	148	79			190	93				
9:30	123	75			163	81				
9:45	108	53	567	279	127	74	670	339	1237	618
10:00	102	51			119	66				
10:15	119	35			108	56				
10:30	112	31			121	60				
10:45	112	24	445	141	129	29	477	211	922	352
11:00	116	25			119	26				
11:15	112	28			138	31				
11:30	147	22			156	25				
11:45	182	25	557	100	168	19	581	101	1138	201
Totals	4000	7586			4548	8935				
Combined Totals		11586				13483				
ADT										25069
AM Peak Hour	730	AM			745	AM				
Volume	938				1319					
P.H.F.	0.946				0.921					
PM Peak Hour		500	PM			445	PM			
Volume		1404				1476				
P.H.F.		0.893				0.909				
Percentage	34.5%	65.5%			33.7%	66.3%				

Phone: 951-268-6268 counts@countsunlimited.com Phone: 951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

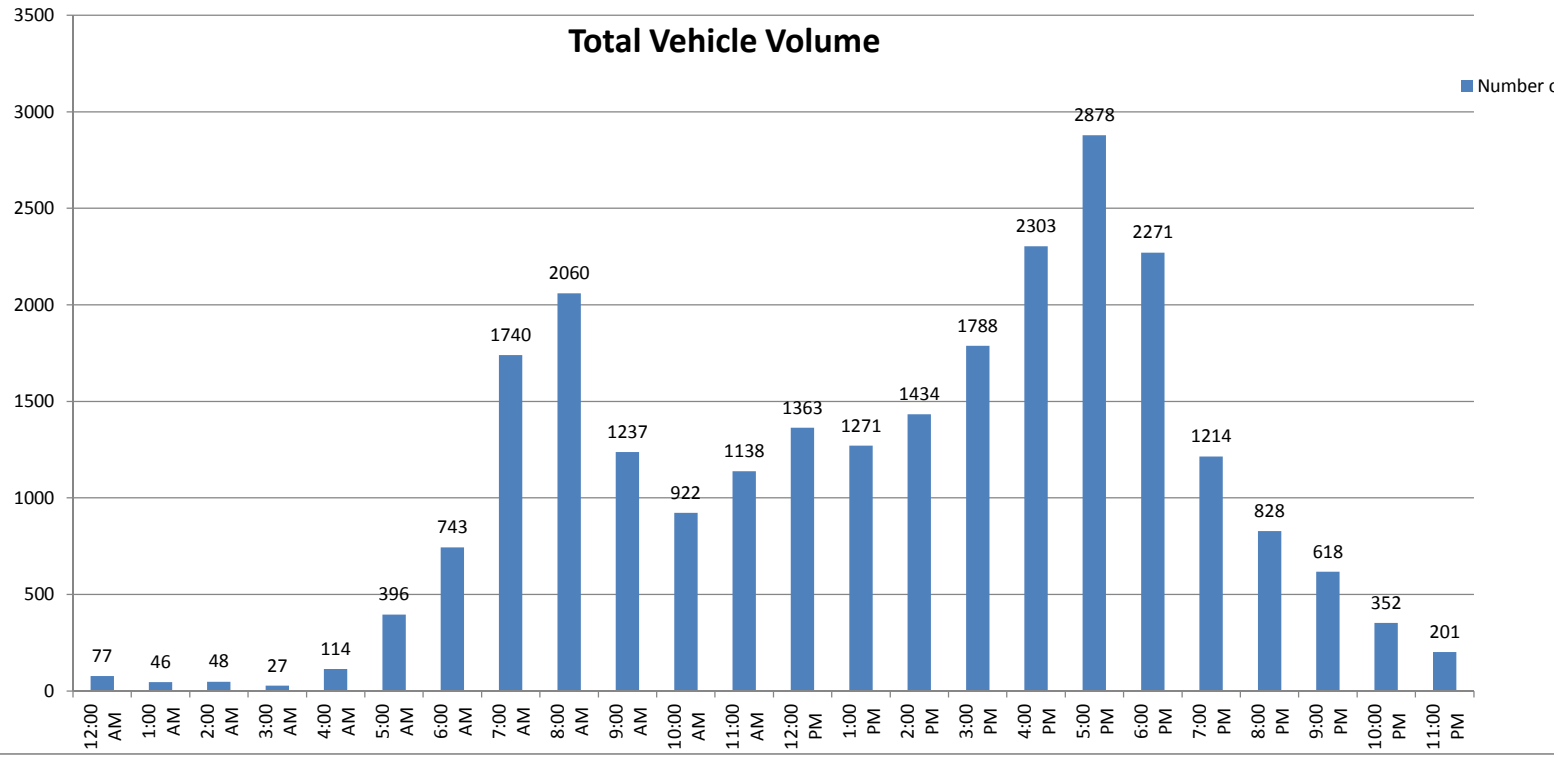
24 Hour Volume Plot

Irvine Center Drive
B/ Harvard Avenue - Culver Drive

2/26/2014

Westbound

Start Time	2/26/2014
12:00 AM	77
1:00 AM	46
2:00 AM	48
3:00 AM	27
4:00 AM	114
5:00 AM	396
6:00 AM	743
7:00 AM	1740
8:00 AM	2060
9:00 AM	1237
10:00 AM	922
11:00 AM	1138
12:00 PM	1363
1:00 PM	1271
2:00 PM	1434
3:00 PM	1788
4:00 PM	2303
5:00 PM	2878
6:00 PM	2271
7:00 PM	1214
8:00 PM	828
9:00 PM	618
10:00 PM	352
11:00 PM	201
Total	25069



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Phone: 951-268-6268

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

Location : DEL AMO AVENUE
Segment : E/O NEWPORT AVE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Interval	EB				WB				Combined				Day: Wednesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	4	10	32	129	0	5	35	151	4	15	67	280	
12:15	2		34		3		44		5		78		
12:30	2		28		0		36		2		64		
12:45	2		35		2		36		4		71		
01:00	1	2	39	117	0	1	32	153	1	3	71	270	
01:15	0		30		0		32		0		62		
01:30	0		30		0		41		0		71		
01:45	1		18		1		48		2		66		
02:00	1	4	20	72	0	1	56	252	1	5	76	324	
02:15	2		22		0		38		2		60		
02:30	1		16		1		86		2		102		
02:45	0		14		0		72		0		86		
03:00	2	4	11	80	0	1	70	399	2	5	81	479	
03:15	1		18		1		70		2		88		
03:30	1		34		0		133		1		167		
03:45	0		17		0		126		0		143		
04:00	1	8	14	76	0	4	154	566	1	12	168	642	
04:15	2		21		0		136		2		157		
04:30	3		21		4		146		7		167		
04:45	2		20		0		130		2		150		
05:00	4	41	21	94	1	12	148	546	5	53	169	640	
05:15	9		24		3		138		12		162		
05:30	16		35		6		142		22		177		
05:45	12		14		2		118		14		132		
06:00	12	95	15	44	3	27	105	323	15	122	120	367	
06:15	20		8		8		108		28		116		
06:30	21		12		4		68		25		80		
06:45	42		9		12		42		54		51		
07:00	40	164	24	79	17	122	64	152	57	286	88	231	
07:15	39		18		28		41		67		59		
07:30	39		24		33		28		72		52		
07:45	46		13		44		19		90		32		
08:00	30	172	19	69	28	154	16	55	58	326	35	124	
08:15	46		23		53		6		99		29		
08:30	48		13		43		15		91		28		
08:45	48		14		30		18		78		32		
09:00	27	121	14	51	24	71	12	42	51	192	26	93	
09:15	28		12		13		13		41		25		
09:30	28		18		17		9		45		27		
09:45	38		7		17		8		55		15		
10:00	17	111	16	38	18	93	7	23	35	204	23	61	
10:15	34		9		26		5		60		14		
10:30	32		6		25		7		57		13		
10:45	28		7		24		4		52		11		
11:00	24	106	4	14	32	130	2	4	56	236	6	18	
11:15	30		1		41		1		71		2		
11:30	22		8		28		0		50		8		
11:45	30		1		29		1		59		2		
Totals	838		863		621		2,666		1,459		3,529		
Split%	57.4		24.5		42.6		75.5						
Day Totals		1,701				3,287				4,988			
Day Splits		34.1				65.9							
Peak Hour	08:00		12:15		07:45		04:00		07:45		04:45		
Volume	172		136		168		566		338		658		
Factor	0.90		0.87		0.79		0.92		0.85		0.93		

Data File : D1405070

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : VALENCIA AVENUE
Segment : W/O REDHILL AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	WB				EB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	1	4	48	248	1	18	64	214	2	22	112	462
12:15	1		60		2		54		3		114	
12:30	1		70		14		50		15		120	
12:45	1		70		1		46		2		116	
01:00	1	3	56	228	0	2	48	158	1	5	104	386
01:15	1		52		0		44		1		96	
01:30	0		48		0		38		0		86	
01:45	1		72		2		28		3		100	
02:00	0	0	76	290	0	2	30	116	0	2	106	406
02:15	0		56		0		23		0		79	
02:30	0		84		1		49		1		133	
02:45	0		74		1		14		1		88	
03:00	0	4	70	324	0	6	32	177	0	10	102	501
03:15	0		73		4		32		4		105	
03:30	2		84		1		77		3		161	
03:45	2		97		1		36		3		133	
04:00	4	9	63	308	0	7	54	212	4	16	117	520
04:15	1		105		1		44		2		149	
04:30	1		70		2		66		3		136	
04:45	3		70		4		48		7		118	
05:00	8	63	80	286	0	35	94	270	8	98	174	556
05:15	12		71		2		68		14		139	
05:30	26		70		14		53		40		123	
05:45	17		65		19		55		36		120	
06:00	14	152	79	277	15	70	53	145	29	222	132	422
06:15	29		106		15		40		44		146	
06:30	51		64		16		37		67		101	
06:45	58		28		24		15		82		43	
07:00	48	289	24	74	16	97	19	69	64	386	43	143
07:15	74		17		17		15		91		32	
07:30	78		20		30		14		108		34	
07:45	89		13		34		21		123		34	
08:00	114	366	13	54	36	116	8	45	150	482	21	99
08:15	100		9		16		13		116		22	
08:30	80		17		36		13		116		30	
08:45	72		15		28		11		100		26	
09:00	47	167	14	46	40	118	18	48	87	285	32	94
09:15	32		9		25		12		57		21	
09:30	49		11		25		8		74		19	
09:45	39		12		28		10		67		22	
10:00	37	126	14	32	25	106	7	29	62	232	21	61
10:15	29		6		24		7		53		13	
10:30	36		8		27		10		63		18	
10:45	24		4		30		5		54		9	
11:00	42	184	5	12	25	193	6	15	67	377	11	27
11:15	34		6		36		3		70		9	
11:30	40		0		80		3		120		3	
11:45	68		1		52		3		120		4	
Totals	1,367		2,179		770		1,498		2,137		3,677	
Split%	64.0		59.3		36.0		40.7					
Day Totals		3,546				2,268				5,814		
Day Splits		61.0				39.0						
Peak Hour	07:45		03:30		11:00		04:30		07:45		04:15	
Volume	383		349		193		276		505		577	
Factor	0.84		0.83		0.60		0.73		0.84		0.83	

Data File : D1405091

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : VALENCIA AVENUE
Segment : E/O REDHILL AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	1	7	56	230	1	6	58	243	2	13	114	473
12:15	1		61		2		51		3		112	
12:30	3		60		2		72		5		132	
12:45	2		53		1		62		3		115	
01:00	0	5	58	204	0	3	54	253	0	8	112	457
01:15	0		41		0		64		0		105	
01:30	2		52		0		67		2		119	
01:45	3		53		3		68		6		121	
02:00	1	3	70	239	1	1	118	317	2	4	188	556
02:15	0		61		0		60		0		121	
02:30	1		57		0		61		1		118	
02:45	1		51		0		78		1		129	
03:00	2	8	59	265	1	9	62	280	3	17	121	545
03:15	3		56		0		69		3		125	
03:30	1		78		6		68		7		146	
03:45	2		72		2		81		4		153	
04:00	0	7	84	429	6	14	60	304	6	21	144	733
04:15	1		92		1		102		2		194	
04:30	1		114		4		79		5		193	
04:45	5		139		3		63		8		202	
05:00	5	77	173	602	7	54	100	270	12	131	273	872
05:15	4		152		17		52		21		204	
05:30	28		132		12		67		40		199	
05:45	40		145		18		51		58		196	
06:00	25	149	132	412	22	181	44	216	47	330	176	628
06:15	33		111		29		106		62		217	
06:30	38		106		84		36		122		142	
06:45	53		63		46		30		99		93	
07:00	36	251	51	171	80	525	30	112	116	776	81	283
07:15	42		52		113		26		155		78	
07:30	74		35		138		36		212		71	
07:45	99		33		194		20		293		53	
08:00	60	194	20	101	180	558	18	116	240	752	38	217
08:15	51		27		128		35		179		62	
08:30	35		31		138		34		173		65	
08:45	48		23		112		29		160		52	
09:00	50	148	32	83	95	309	18	81	145	457	50	164
09:15	30		24		60		16		90		40	
09:30	32		12		72		15		104		27	
09:45	36		15		82		32		118		47	
10:00	31	138	11	49	58	210	20	49	89	348	31	98
10:15	32		15		48		10		80		25	
10:30	36		14		58		8		94		22	
10:45	39		9		46		11		85		20	
11:00	38	186	5	18	57	257	18	32	95	443	23	50
11:15	38		4		60		10		98		14	
11:30	57		7		70		1		127		8	
11:45	53		2		70		3		123		5	
Totals	1,173		2,803		2,127		2,273		3,300		5,076	
Split%	35.5		55.2		64.5		44.8					
Day Totals		3,976				4,400				8,376		
Day Splits		47.5				52.5						
Peak Hour	07:30		05:00		07:30		04:15		07:30		04:45	
Volume	284		602		640		344		924		878	
Factor	0.72		0.87		0.82		0.84		0.79		0.80	

* Data File : D1405092

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : VALENCIA AVENUE
Segment : W/O KENSINGTON PARK DRIVE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	1	6	50	160	2	5	34	179	3	11	84	339
12:15	0		36		1		46		1		82	
12:30	3		36		1		60		4		96	
12:45	2		38		1		39		3		77	
01:00	0	0	44	142	1	4	37	162	1	4	81	304
01:15	0		31		1		48		1		79	
01:30	0		39		1		40		1		79	
01:45	0		28		1		37		1		65	
02:00	0	2	38	145	0	1	32	147	0	3	70	292
02:15	1		41		0		34		1		75	
02:30	1		36		1		39		2		75	
02:45	0		30		0		42		0		72	
03:00	1	3	48	183	0	7	46	160	1	10	94	343
03:15	1		33		0		30		1		63	
03:30	0		55		2		31		2		86	
03:45	1		47		5		53		6		100	
04:00	1	8	65	366	1	4	32	185	2	12	97	551
04:15	0		78		1		46		1		124	
04:30	1		107		0		54		1		161	
04:45	6		116		2		53		8		169	
05:00	4	17	145	508	2	35	62	236	6	52	207	744
05:15	2		135		9		54		11		189	
05:30	5		119		7		70		12		189	
05:45	6		109		17		50		23		159	
06:00	10	92	110	318	13	97	34	163	23	189	144	481
06:15	15		105		17		53		32		158	
06:30	33		67		32		44		65		111	
06:45	34		36		35		32		69		68	
07:00	30	182	41	134	59	337	25	126	89	519	66	260
07:15	37		43		70		31		107		74	
07:30	45		32		76		46		121		78	
07:45	70		18		132		24		202		42	
08:00	52	143	19	63	116	373	28	89	168	516	47	152
08:15	37		15		96		19		133		34	
08:30	22		18		94		21		116		39	
08:45	32		11		67		21		99		32	
09:00	27	101	18	37	60	170	18	67	87	271	36	104
09:15	24		12		38		18		62		30	
09:30	20		3		37		16		57		19	
09:45	30		4		35		15		65		19	
10:00	26	91	5	17	34	117	8	30	60	208	13	47
10:15	18		5		26		9		44		14	
10:30	24		3		32		5		56		8	
10:45	23		4		25		8		48		12	
11:00	28	152	3	12	24	103	10	21	52	255	13	33
11:15	24		4		26		4		50		8	
11:30	59		4		31		3		90		7	
11:45	41		1		22		4		63		5	
Totals	797		2,085		1,253		1,565		2,050		3,650	
Split%	38.9		57.1		61.1		42.9					
Day Totals		2,882				2,818				5,700		
Day Splits		50.6				49.4						
Peak Hour	07:15		04:45		07:45		04:45		07:30		04:45	
Volume	204		515		438		239		624		754	
Factor	0.73		0.89		0.83		0.85		0.77		0.91	

Data File : D1405093

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : VALENCIA AVENUE
Segment : TRR TO KENSINGTON PARK DR
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 04/29/14

Day: Tuesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	0	1	42	170	4	7	36	170	4	8	78	340
12:15	1		48		2		46		3		94	
12:30	0		38		0		44		0		82	
12:45	0		42		1		44		1		86	
01:00	0	0	40	165	0	1	62	189	0	1	102	354
01:15	0		40		0		42		0		82	
01:30	0		36		0		46		0		82	
01:45	0		49		1		39		1		88	
02:00	1	2	45	188	0	1	34	144	1	3	79	332
02:15	0		50		1		34		1		84	
02:30	1		44		0		34		1		78	
02:45	0		49		0		42		0		91	
03:00	0	4	45	177	0	0	41	174	0	4	86	351
03:15	1		36		0		48		1		84	
03:30	2		59		0		44		2		103	
03:45	1		37		0		41		1		78	
04:00	0	7	66	294	1	4	34	153	1	11	100	447
04:15	1		66		0		41		1		107	
04:30	0		80		2		45		2		125	
04:45	6		82		1		33		7		115	
05:00	6	32	135	479	2	22	68	226	8	54	203	705
05:15	7		126		1		46		8		172	
05:30	12		108		7		59		19		167	
05:45	7		110		12		53		19		163	
06:00	22	109	96	301	14	88	51	219	36	197	147	520
06:15	21		80		12		69		33		149	
06:30	30		71		22		56		52		127	
06:45	36		54		40		43		76		97	
07:00	40	225	43	122	33	288	36	127	73	513	79	249
07:15	48		33		74		28		122		61	
07:30	60		28		80		39		140		67	
07:45	77		18		101		24		178		42	
08:00	50	169	17	72	82	332	32	96	132	501	49	168
08:15	46		12		97		18		143		30	
08:30	35		18		92		25		127		43	
08:45	38		25		61		21		99		46	
09:00	34	130	13	47	57	157	22	74	91	287	35	121
09:15	34		10		35		25		69		35	
09:30	37		15		32		19		69		34	
09:45	25		9		33		8		58		17	
10:00	22	102	9	18	28	85	14	36	50	187	23	54
10:15	30		2		14		9		44		11	
10:30	22		6		18		9		40		15	
10:45	28		1		25		4		53		5	
11:00	38	150	3	8	26	111	7	21	64	261	10	29
11:15	28		2		25		4		53		6	
11:30	51		1		32		6		83		7	
11:45	33		2		28		4		61		6	
Totals	931		2,041		1,096		1,629		2,027		3,670	
Split%	45.9		55.6		54.1		44.4					
Day Totals		2,972				2,725				5,697		
Day Splits		52.2				47.8						
Peak Hour	07:15		05:00		07:45		05:30		07:30		05:00	
Volume	235		479		372		232		593		705	
Factor	0.76		0.89		0.92		0.84		0.83		0.87	

Data File : D1405012

Transportation Studies, Inc.

2640 Walnut Avenue, Suite H

Tustin, CA. 92780

Location: : WARNER AVENUE
Segment: : W/O REDHILL AVENUE
Client: : CITY OF TUSTIN

Site: SANTA ANA
Date: 09/23/14

Day: Tuesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	9	21	136	446	8	27	115	455	17	48	251	901
12:15	3		104		5		115		8		219	
12:30	5		102		10		109		15		211	
12:45	4		104		4		116		8		220	
01:00	6	14	114	425	2	11	110	450	8	25	224	875
01:15	2		87		2		102		4		189	
01:30	5		118		5		136		10		254	
01:45	1		106		2		102		3		208	
02:00	2	22	120	500	6	12	128	691	8	34	248	1.191
02:15	5		112		2		128		7		240	
02:30	8		150		2		249		10		399	
02:45	7		118		2		186		9		304	
03:00	4	49	115	448	3	11	148	686	7	60	263	1,134
03:15	2		101		0		164		2		265	
03:30	19		124		5		211		24		335	
03:45	24		108		3		163		27		271	
04:00	17	140	146	597	6	44	193	783	23	184	339	1.380
04:15	29		137		10		188		39		325	
04:30	36		160		10		208		46		368	
04:45	58		154		18		194		76		348	
05:00	29	361	216	714	10	90	202	810	39	451	418	1,524
05:15	58		166		12		230		70		396	
05:30	98		186		24		202		122		388	
05:45	176		146		44		176		220		322	
06:00	75	443	154	432	46	246	156	511	121	689	310	943
06:15	102		131		48		138		150		269	
06:30	112		70		60		139		172		209	
06:45	154		77		92		78		246		155	
07:00	106	561	72	232	98	478	72	188	204	1.039	144	420
07:15	132		58		128		39		260		97	
07:30	143		54		124		41		267		95	
07:45	180		48		128		36		308		84	
08:00	140	526	48	135	132	509	36	129	272	1.035	84	264
08:15	160		35		134		34		294		69	
08:30	126		20		115		27		241		47	
08:45	100		32		128		32		228		64	
09:00	77	266	28	98	99	359	36	124	176	625	64	222
09:15	62		32		91		28		153		60	
09:30	66		12		85		33		151		45	
09:45	61		26		84		27		145		53	
10:00	74	293	25	64	68	293	36	99	142	586	61	163
10:15	70		16		84		18		154		34	
10:30	67		11		73		25		140		36	
10:45	82		12		68		20		150		32	
11:00	102	414	12	35	59	259	20	58	161	673	32	93
11:15	102		8		62		16		164		24	
11:30	109		7		68		14		177		21	
11:45	101		8		70		8		171		16	
Totals	3.110		4.126		2.339		4.984		5.449		9.110	
Split%	57.1		45.3		42.9		54.7					
Day Totals		7.236				7.323				14.559		
Day Splits		49.7				50.3						
Peak Hour	07:30		04:45		07:30		04:30		07:30		04:45	
Volume	623		722		518		834		1.141		1.550	
Factor	0.87		0.84		0.97		0.91		0.93		0.93	

* Data File : D1409268

Printed : 9/24/2014

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : WARNER AVENUE
Segment : TUSTIN RANCH TO PARK AVE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	10	21	116	455	4	17	63	275	14	38	179	730
12:15	3		112		3		64		6		176	
12:30	6		94		6		76		12		170	
12:45	2		133		4		72		6		205	
01:00	2	17	126	463	2	6	89	319	4	23	215	782
01:15	2		124		0		86		2		210	
01:30	9		105		1		74		10		179	
01:45	4		108		3		70		7		178	
02:00	5	12	104	420	4	7	70	316	9	19	174	736
02:15	2		108		1		86		3		194	
02:30	2		97		1		70		3		167	
02:45	3		111		1		90		4		201	
03:00	4	15	124	476	1	4	78	315	5	19	202	791
03:15	1		128		1		76		2		204	
03:30	2		114		1		74		3		188	
03:45	8		110		1		87		9		197	
04:00	8	61	140	644	4	13	102	360	12	74	242	1,004
04:15	16		170		0		86		16		256	
04:30	14		157		6		74		20		231	
04:45	23		177		3		98		26		275	
05:00	18	151	210	768	6	39	116	472	24	190	326	1,240
05:15	26		208		12		138		38		346	
05:30	43		172		6		112		49		284	
05:45	64		178		15		106		79		284	
06:00	65	301	175	667	22	178	86	377	87	479	261	1,044
06:15	68		184		38		105		106		289	
06:30	72		159		50		112		122		271	
06:45	96		149		68		74		164		223	
07:00	37	227	124	431	79	507	57	211	116	734	181	642
07:15	36		126		119		46		155		172	
07:30	64		102		142		63		206		165	
07:45	90		79		167		45		257		124	
08:00	72	324	81	293	196	683	43	161	268	1,007	124	454
08:15	83		80		214		35		297		115	
08:30	77		74		150		41		227		115	
08:45	92		58		123		42		215		100	
09:00	48	227	55	157	80	264	30	99	128	491	85	256
09:15	52		36		64		32		116		68	
09:30	58		40		74		23		132		63	
09:45	69		26		46		14		115		40	
10:00	59	300	17	72	56	224	9	51	115	524	26	123
10:15	75		20		41		14		116		34	
10:30	90		27		55		17		145		44	
10:45	76		8		72		11		148		19	
11:00	84	407	12	42	50	212	7	33	134	619	19	75
11:15	88		9		52		13		140		22	
11:30	119		8		59		11		178		19	
11:45	116		13		51		2		167		15	
Totals	2,063		4,888		2,154		2,989		4,217		7,877	
Split%	48.9		62.1		51.1		37.9					
Day Totals		6,951				5,143				12,094		
Day Splits		57.5				42.5						
Peak Hour	11:00		05:00		07:45		05:00		07:45		05:00	
Volume	407		768		727		472		1,049		1,240	
Factor	0.86		0.91		0.85		0.86		0.88		0.90	

* Data File : D1405099

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : WARNER AVENUE
Segment : E/O PARK AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Interval	EB				WB				Combined				Day: Thursday
Begin	AM		PM		AM		PM		AM		PM		
12:00	47	125	232	939	8	20	82	341	55	145	314	1,280	
12:15	32		234		3		78		35		312		
12:30	26		207		6		78		32		285		
12:45	20		266		3		103		23		369		
01:00	20	68	258	1,035	1	4	81	344	21	72	339	1,379	
01:15	18		235		0		88		18		323		
01:30	20		282		1		93		21		375		
01:45	10		260		2		82		12		342		
02:00	18	52	241	955	4	9	86	342	22	61	327	1,297	
02:15	4		218		1		100		5		318		
02:30	10		260		1		79		11		339		
02:45	20		236		3		77		23		313		
03:00	11	46	250	955	2	3	95	346	13	49	345	1,301	
03:15	7		248		0		81		7		329		
03:30	12		242		1		74		13		316		
03:45	16		215		0		96		16		311		
04:00	14	125	232	1,022	2	14	99	397	16	139	331	1,419	
04:15	16		250		3		108		19		358		
04:30	40		266		6		82		46		348		
04:45	55		274		3		108		58		382		
05:00	54	356	332	1,158	6	38	122	512	60	394	454	1,670	
05:15	74		280		12		139		86		419		
05:30	104		270		5		123		109		393		
05:45	124		276		15		128		139		404		
06:00	116	441	304	1,153	16	121	88	410	132	562	392	1,563	
06:15	109		311		30		136		139		447		
06:30	98		266		27		110		125		376		
06:45	118		272		48		76		166		348		
07:00	73	419	241	859	49	247	75	287	122	666	316	1,146	
07:15	88		223		62		66		150		289		
07:30	101		198		66		82		167		280		
07:45	157		197		70		64		227		261		
08:00	166	653	192	770	78	314	70	200	244	967	262	970	
08:15	151		185		90		54		241		239		
08:30	162		195		74		37		236		232		
08:45	174		198		72		39		246		237		
09:00	122	506	174	491	52	224	30	95	174	730	204	586	
09:15	128		135		50		36		178		171		
09:30	120		114		64		11		184		125		
09:45	136		68		58		18		194		86		
10:00	123	648	76	221	74	306	7	34	197	954	83	255	
10:15	153		60		82		16		235		76		
10:30	193		54		64		7		257		61		
10:45	179		31		86		4		265		35		
11:00	184	828	38	140	86	347	6	23	270	1,175	44	163	
11:15	196		46		79		5		275		51		
11:30	214		32		104		8		318		40		
11:45	234		24		78		4		312		28		
Totals	4,267		9,698		1,647		3,331		5,914		13,029		
Split%	72.2		74.4		27.8		25.6						
Day Totals		13,965				4,978				18,943			
Day Splits		73.7				26.3							
Peak Hour	11:00		05:30		10:45		05:00		11:00		05:00		
Volume	828		1,161		355		512		1,175		1,670		
Factor	0.88		0.93		0.85		0.92		0.92		0.92		

* Data File : D1405100

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : WARNER AVENUE (NB)
Segment : JAMBOREE ROAD
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/29/14

Day: Thursday

Interval	ON				OFF				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	16	79	130	614	4	8	18	70	20	87	148	684
12:15	38		152		2		16		40		168	
12:30	17		154		1		12		18		166	
12:45	8		178		1		24		9		202	
01:00	15	82	162	606	0	0	18	57	15	82	180	663
01:15	18		126		0		18		18		144	
01:30	37		148		0		14		37		162	
01:45	12		170		0		7		12		177	
02:00	12	36	159	630	0	1	10	47	12	37	169	677
02:15	8		162		1		19		9		181	
02:30	6		148		0		8		6		156	
02:45	10		161		0		10		10		171	
03:00	12	39	140	615	0	0	17	51	12	39	157	666
03:15	9		164		0		10		9		174	
03:30	12		172		0		10		12		182	
03:45	6		139		0		14		6		153	
04:00	14	69	176	741	0	8	24	65	14	77	200	806
04:15	10		172		2		12		12		184	
04:30	11		206		4		12		15		218	
04:45	34		187		2		17		36		204	
05:00	28	111	212	784	1	7	16	64	29	118	228	848
05:15	30		206		0		20		30		226	
05:30	28		180		4		14		32		194	
05:45	25		186		2		14		27		200	
06:00	64	378	186	732	6	15	16	60	70	393	202	792
06:15	72		204		5		20		77		224	
06:30	108		187		1		16		109		203	
06:45	134		155		3		8		137		163	
07:00	118	413	192	562	2	12	14	52	120	425	206	614
07:15	100		146		2		12		102		158	
07:30	105		113		4		14		109		127	
07:45	90		111		4		12		94		123	
08:00	106	469	106	436	6	26	12	28	112	495	118	464
08:15	110		109		7		6		117		115	
08:30	145		115		10		2		155		117	
08:45	108		106		3		8		111		114	
09:00	111	426	124	333	12	24	5	17	123	450	129	350
09:15	104		76		6		5		110		81	
09:30	102		87		2		3		104		90	
09:45	109		46		4		4		113		50	
10:00	118	484	50	147	3	36	1	5	121	520	51	152
10:15	124		41		11		4		135		45	
10:30	116		38		6		0		122		38	
10:45	126		18		16		0		142		18	
11:00	114	523	22	110	18	72	0	4	132	595	22	114
11:15	116		36		22		0		138		36	
11:30	138		31		16		2		154		33	
11:45	155		21		16		2		171		23	
Totals	3,109		6,310		209		520		3,318		6,830	
Split%	93.7		92.4		6.3		7.6					
Day Totals		9,419				729				10,148		
Day Splits		92.8				7.2						
Peak Hour	11:00		04:30		10:45		12:45		11:00		04:30	
Volume	523		811		72		74		595		876	
Factor	0.84		0.96		0.82		0.77		0.87		0.96	

Data File : D1405080

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Warner Avenue
B/ Construction Circle North - Harvard Avenue

File Name 318
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
1/16/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	9	83			6	79				
12:15	5	112			2	73				
12:30	2	102			2	74				
12:45	4	104	20	401	2	83	12	309	32	710
1:00	1	120			3	77				
1:15	1	111			1	72				
1:30	4	116			5	92				
1:45	2	117	8	464	3	72	12	313	20	777
2:00	1	114			1	67				
2:15	1	95			1	62				
2:30	3	118			0	83				
2:45	0	99	5	426	1	84	3	296	8	722
3:00	0	107			0	84				
3:15	0	97			2	111				
3:30	1	86			1	95				
3:45	2	121	3	411	0	103	3	393	6	804
4:00	3	110			3	113				
4:15	0	106			1	112				
4:30	0	142			4	100				
4:45	4	124	7	482	10	134	18	459	25	941
5:00	1	116			10	116				
5:15	4	121			14	149				
5:30	2	103			13	120				
5:45	8	120	15	460	24	121	61	506	76	966
6:00	14	115			29	123				
6:15	19	122			32	128				
6:30	22	126			56	111				
6:45	35	114	90	477	58	86	175	448	265	925
7:00	39	119			61	95				
7:15	43	91			92	66				
7:30	72	92			94	70				
7:45	77	106	231	408	120	65	367	296	598	704
8:00	65	85			121	48				
8:15	65	91			132	42				
8:30	59	70			110	33				
8:45	69	55	258	301	107	20	470	143	728	444
9:00	66	53			91	31				
9:15	53	70			108	26				
9:30	55	42			87	20				
9:45	49	35	223	200	77	16	363	93	586	293
10:00	58	30			90	11				
10:15	65	25			87	14				
10:30	67	22			77	13				
10:45	77	15	267	92	85	12	339	50	606	142
11:00	70	17			68	7				
11:15	81	13			79	7				
11:30	80	14			81	3				
11:45	98	5	329	49	82	4	310	21	639	70
Totals	1456	4171			2133	3327				
Combined Totals		5627				5460				
ADT										11087
AM Peak Hour	1100	AM			745	AM				
Volume	329				483					
P.H.F.	0.839				0.915					
PM Peak Hour		430	PM			445	PM			
Volume		503				519				
P.H.F.		0.886				0.871				
Percentage	25.9%	74.1%			39.1%	60.9%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

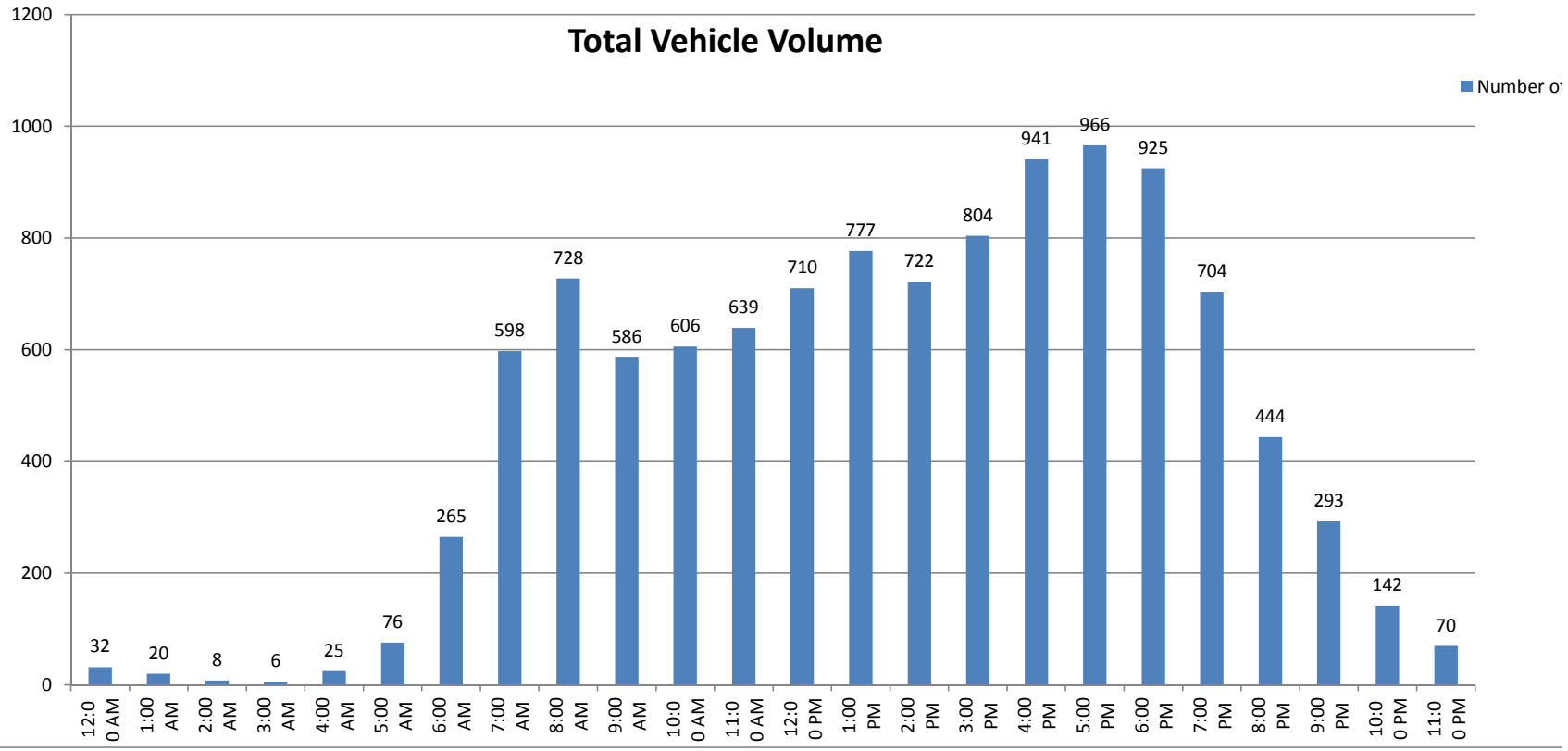
Warner Avenue

B/ Construction Circle North - Harvard Avenue

1/16/2014

Westbound

Start Time	1/16/2014
12:00 AM	32
1:00 AM	20
2:00 AM	8
3:00 AM	6
4:00 AM	25
5:00 AM	76
6:00 AM	265
7:00 AM	598
8:00 AM	728
9:00 AM	586
10:00 AM	606
11:00 AM	639
12:00 PM	710
1:00 PM	777
2:00 PM	722
3:00 PM	804
4:00 PM	941
5:00 PM	966
6:00 PM	925
7:00 PM	704
8:00 PM	444
9:00 PM	293
10:00 PM	142
11:00 PM	70
Total	11087



Volumes represent the combined totals for both directions

Phone: 951-268-6268
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Counts Unlimited, Inc.
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Corona, CA 92878

City of Irvine
Warner Avenue
B/ Harvard Avenue - Paseo Westpark

File Name 319
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
1/15/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	5	49			2	53				
12:15	8	55			1	52				
12:30	2	69			1	51				
12:45	2	54	17	227	0	66	4	222	21	449
1:00	7	106			1	54				
1:15	2	88			2	79				
1:30	3	61			2	101				
1:45	3	62	15	317	0	68	5	302	20	619
2:00	0	75			0	49				
2:15	0	71			0	59				
2:30	0	69			1	53				
2:45	2	90	2	305	3	57	4	218	6	523
3:00	0	86			0	71				
3:15	0	95			1	98				
3:30	1	80			2	72				
3:45	1	89	2	350	2	63	5	304	7	654
4:00	2	60			4	60				
4:15	0	119			0	61				
4:30	2	85			2	62				
4:45	2	97	6	361	6	69	12	252	18	613
5:00	2	98			3	64				
5:15	0	113			5	81				
5:30	2	101			11	78				
5:45	3	133	7	445	15	89	34	312	41	757
6:00	5	106			14	78				
6:15	7	125			21	70				
6:30	11	109			33	66				
6:45	22	115	45	455	40	62	108	276	153	731
7:00	16	91			48	50				
7:15	27	71			56	54				
7:30	31	66			81	33				
7:45	96	71	170	299	113	34	298	171	468	470
8:00	52	62			144	35				
8:15	43	57			107	38				
8:30	27	63			76	29				
8:45	37	50	159	232	85	27	412	129	571	361
9:00	58	51			78	22				
9:15	50	38			80	15				
9:30	19	38			80	10				
9:45	25	23	152	150	67	9	305	56	457	206
10:00	38	31			59	10				
10:15	35	18			65	19				
10:30	42	24			52	9				
10:45	52	16	167	89	49	6	225	44	392	133
11:00	54	17			47	9				
11:15	66	5			55	5				
11:30	58	7			54	3				
11:45	53	11	231	40	64	2	220	19	451	59
Totals	973	3270			1632	2305				
Combined Totals		4243				3937				
ADT										8180
AM Peak Hour	1100	AM			730	AM				
Volume	231				445					
P.H.F.	0.875				0.773					
PM Peak Hour		545	PM			515	PM			
Volume		473				326				
P.H.F.		0.889				0.916				
Percentage	22.9%	77.1%			41.5%	58.5%				

Phone: 951-268-6268 counts@countsunlimited.com Phone: 951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

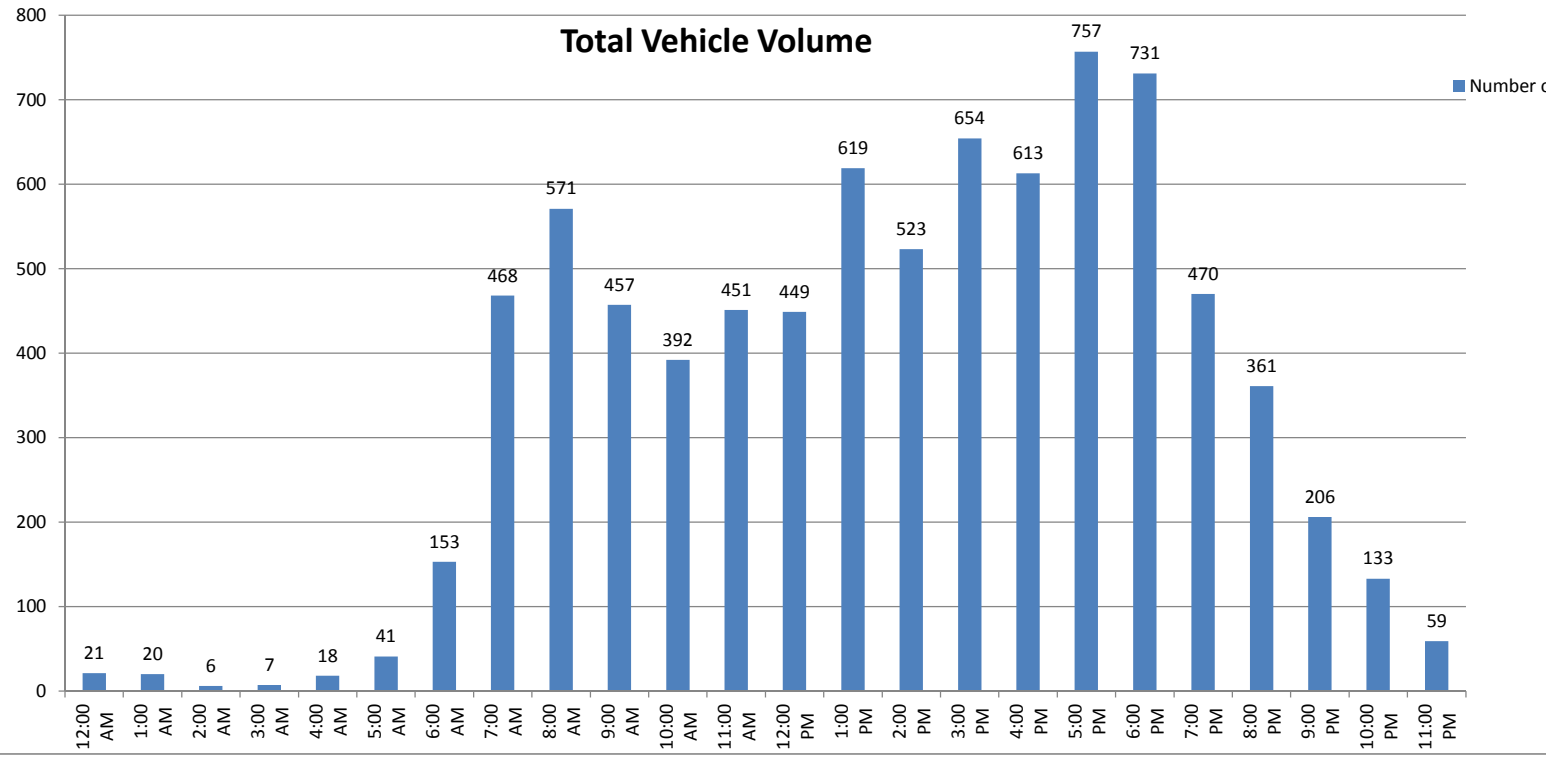
Warner Avenue

B/ Harvard Avenue - Paseo Westpark

1/15/2014

Westbound

Start Time	1/15/2014
12:00 AM	21
1:00 AM	20
2:00 AM	6
3:00 AM	7
4:00 AM	18
5:00 AM	41
6:00 AM	153
7:00 AM	468
8:00 AM	571
9:00 AM	457
10:00 AM	392
11:00 AM	451
12:00 PM	449
1:00 PM	619
2:00 PM	523
3:00 PM	654
4:00 PM	613
5:00 PM	757
6:00 PM	731
7:00 PM	470
8:00 PM	361
9:00 PM	206
10:00 PM	133
11:00 PM	59
Total	8180



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Phone: 951-268-6268

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Barranca Parkway
B/ Pullman Street - Redhill Avenue

File Name 050
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
1/23/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	14	249			52	218				
12:15	11	219			25	193				
12:30	11	209			59	247				
12:45	5	201	41	878	21	225	157	883	198	1761
1:00	10	212			20	270				
1:15	11	215			23	225				
1:30	14	217			54	253				
1:45	12	214	47	858	21	267	118	1015	165	1873
2:00	5	178			31	274				
2:15	14	194			21	309				
2:30	24	196			17	308				
2:45	29	201	72	769	19	356	88	1247	160	2016
3:00	8	189			27	291				
3:15	17	190			10	333				
3:30	32	187			12	348				
3:45	49	255	106	821	8	339	57	1311	163	2132
4:00	35	190			10	327				
4:15	48	213			11	367				
4:30	95	222			20	375				
4:45	187	275	365	900	27	374	68	1443	433	2343
5:00	147	292			25	380				
5:15	137	336			32	360				
5:30	208	265			32	296				
5:45	315	237	807	1130	49	308	138	1344	945	2474
6:00	189	238			93	326				
6:15	235	222			105	301				
6:30	233	185			88	319				
6:45	311	141	968	786	143	239	429	1185	1397	1971
7:00	266	149			159	247				
7:15	312	125			161	220				
7:30	322	105			173	184				
7:45	318	77	1218	456	235	190	728	841	1946	1297
8:00	305	98			248	173				
8:15	307	90			236	155				
8:30	276	58			233	152				
8:45	293	78	1181	324	194	135	911	615	2092	939
9:00	234	61			166	148				
9:15	237	56			156	122				
9:30	183	50			169	123				
9:45	240	47	894	214	165	127	656	520	1550	734
10:00	182	38			159	136				
10:15	182	47			162	109				
10:30	193	41			171	96				
10:45	226	42	783	168	179	84	671	425	1454	593
11:00	214	36			210	106				
11:15	188	32			195	83				
11:30	222	18			221	75				
11:45	239	11	863	97	220	50	846	314	1709	411
Totals	7345	7401			4867	11143				
Combined Totals		14746				16010				
ADT										30756
AM Peak Hour	715	AM			745	AM				
Volume	1257				952					
P.H.F.	0.976				0.960					
PM Peak Hour		445	PM			415	PM			
Volume		1168				1496				
P.H.F.		0.869				0.984				
Percentage	49.8%	50.2%			30.4%	69.6%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

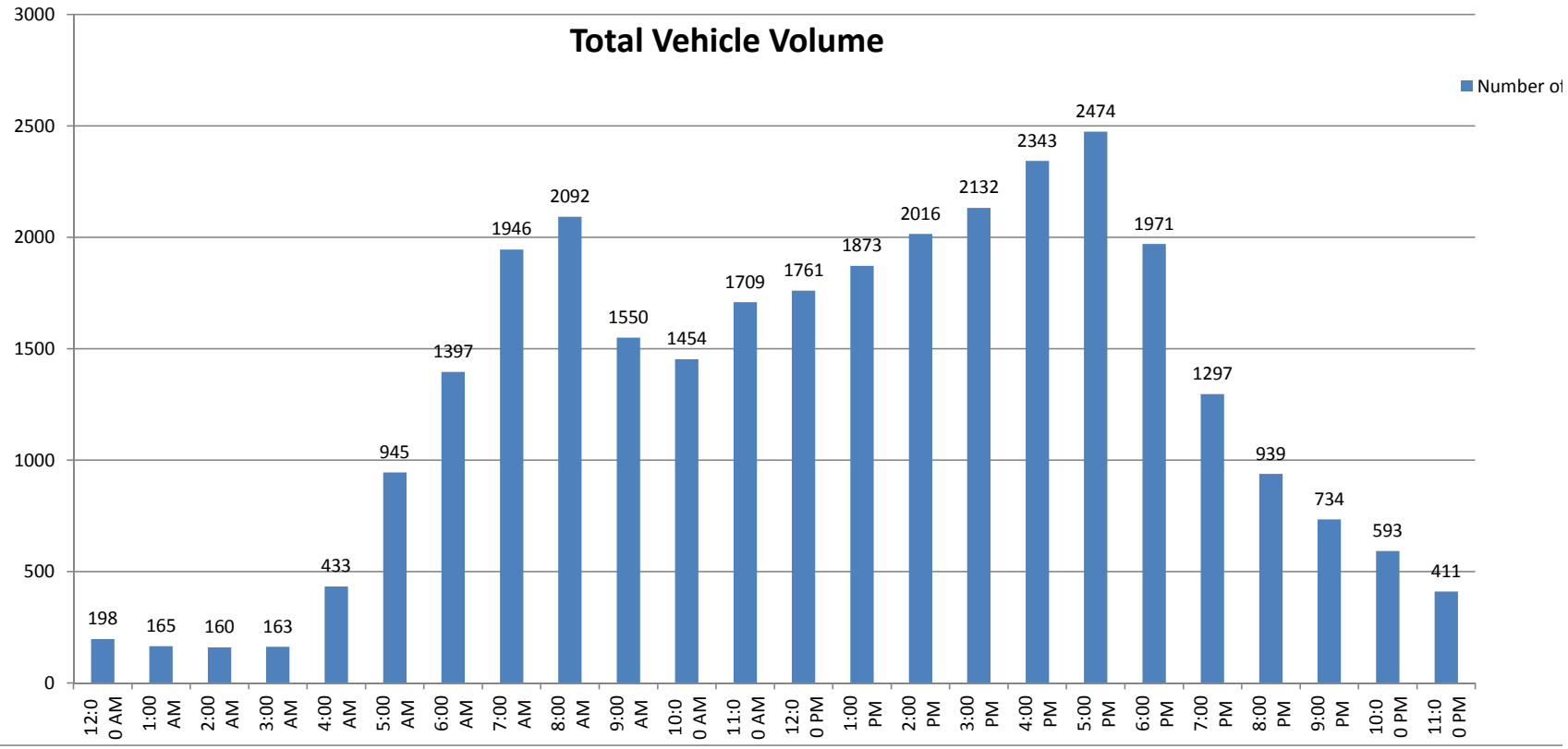
24 Hour Volume Plot

Barranca Parkway
B/ Pullman Street - Redhill Avenue

1/23/2014

Westbound

Start Time	1/23/2014
12:00 AM	198
1:00 AM	165
2:00 AM	160
3:00 AM	163
4:00 AM	433
5:00 AM	945
6:00 AM	1397
7:00 AM	1946
8:00 AM	2092
9:00 AM	1550
10:00 AM	1454
11:00 AM	1709
12:00 PM	1761
1:00 PM	1873
2:00 PM	2016
3:00 PM	2132
4:00 PM	2343
5:00 PM	2474
6:00 PM	1971
7:00 PM	1297
8:00 PM	939
9:00 PM	734
10:00 PM	593
11:00 PM	411
Total	30756



Volumes represent the combined totals for both directions

Phone: 951-268-6268
counts@countsunlimited.com
Fax: 951-268-6267

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : BARRANCA PARKWAY
Segment : E/O REDHILL AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	16	50	411	1,464	45	132	278	1,239	61	182	689	2,703
12:15	12		346		29		316		41		662	
12:30	12		397		34		306		46		703	
12:45	10		310		24		339		34		649	
01:00	9	30	376	1,257	30	90	338	1,320	39	120	714	2,577
01:15	4		284		16		292		20		576	
01:30	8		314		26		351		34		665	
01:45	9		283		18		339		27		622	
02:00	6	59	304	1,171	22	76	290	1,257	28	135	594	2,428
02:15	4		279		11		273		15		552	
02:30	11		281		25		360		36		641	
02:45	38		307		18		334		56		641	
03:00	12	110	340	1,257	25	55	388	1,544	37	165	728	2,801
03:15	13		312		9		366		22		678	
03:30	32		290		5		412		37		702	
03:45	53		315		16		378		69		693	
04:00	33	312	308	1,415	7	53	398	1,535	40	365	706	2,950
04:15	44		332		8		374		52		706	
04:30	82		343		14		384		96		727	
04:45	153		432		24		379		177		811	
05:00	96	669	374	1,673	15	149	400	1,518	111	818	774	3,191
05:15	117		458		30		362		147		820	
05:30	194		417		29		402		223		819	
05:45	262		424		75		354		337		778	
06:00	194	1,029	394	1,296	86	443	336	1,295	280	1,472	730	2,591
06:15	251		352		92		357		343		709	
06:30	240		268		110		330		350		598	
06:45	344		282		155		272		499		554	
07:00	258	1,177	230	776	192	1,035	288	943	450	2,212	518	1,719
07:15	270		202		250		252		520		454	
07:30	309		196		236		216		545		412	
07:45	340		148		357		187		697		335	
08:00	328	1,324	130	457	332	1,255	213	723	660	2,579	343	1,180
08:15	348		124		312		179		660		303	
08:30	326		107		282		177		608		284	
08:45	322		96		329		154		651		250	
09:00	280	986	94	350	236	833	178	622	516	1,819	272	972
09:15	242		96		217		144		459		240	
09:30	228		80		196		168		424		248	
09:45	236		80		184		132		420		212	
10:00	260	945	53	198	182	728	124	450	442	1,673	177	648
10:15	229		60		163		136		392		196	
10:30	214		46		167		92		381		138	
10:45	242		39		216		98		458		137	
11:00	294	1,361	44	124	226	931	107	334	520	2,292	151	458
11:15	320		42		182		81		502		123	
11:30	376		16		258		80		634		96	
11:45	371		22		265		66		636		88	
Totals	8,052		11,438		5,780		12,780		13,832		24,218	
Split%	58.2		47.2		41.8		52.8					
Day Totals		19,490				18,560				38,050		
Day Splits		51.2				48.8						
Peak Hour	11:00		05:15		07:45		03:30		07:45		04:45	
Volume	1,361		1,693		1,283		1,562		2,625		3,224	
Factor	0.90		0.92		0.90		0.95		0.94		0.98	

Data File : D1405062

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Barranca Parkway
B/ Armstrong Avenue - Von Karman Avenue

File Name 052
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
1/23/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	21	341			47	215				
12:15	13	406			27	256				
12:30	15	331			34	294				
12:45	11	339	60	1417	22	352	130	1117	190	2534
1:00	13	306			9	340				
1:15	10	309			22	348				
1:30	8	267			16	302				
1:45	9	303	40	1185	18	295	65	1285	105	2470
2:00	5	266			22	294				
2:15	2	236			25	326				
2:30	9	240			9	279				
2:45	11	288	27	1030	13	366	69	1265	96	2295
3:00	5	261			10	266				
3:15	7	321			6	347				
3:30	10	277			8	315				
3:45	33	332	55	1191	4	387	28	1315	83	2506
4:00	32	311			8	307				
4:15	32	358			12	367				
4:30	29	350			14	329				
4:45	81	415	174	1434	18	352	52	1355	226	2789
5:00	109	419			26	321				
5:15	91	471			27	397				
5:30	96	455			42	313				
5:45	157	407	453	1752	66	293	161	1324	614	3076
6:00	191	389			82	317				
6:15	122	373			95	315				
6:30	176	355			103	297				
6:45	242	295	731	1412	147	293	427	1222	1158	2634
7:00	231	219			196	237				
7:15	259	192			244	259				
7:30	237	189			272	200				
7:45	305	135	1032	735	386	190	1098	886	2130	1621
8:00	289	149			411	174				
8:15	272	131			440	161				
8:30	250	101			410	143				
8:45	286	104	1097	485	398	143	1659	621	2756	1106
9:00	248	87			292	143				
9:15	232	88			273	135				
9:30	204	80			183	106				
9:45	204	74	888	329	249	133	997	517	1885	846
10:00	193	45			173	116				
10:15	208	62			167	119				
10:30	198	52			188	86				
10:45	202	52	801	211	188	96	716	417	1517	628
11:00	242	28			187	65				
11:15	268	43			209	76				
11:30	287	27			223	86				
11:45	405	16	1202	114	225	47	844	274	2046	388
Totals	6560	11295			6246	11598				
Combined Totals		17855				17844				
ADT										35699
AM Peak Hour	1100	AM			800	AM				
Volume	1202				1659					
P.H.F.	0.742				0.943					
PM Peak Hour		445	PM			430	PM			
Volume		1760				1399				
P.H.F.		0.934				0.881				
Percentage	36.7%	63.3%			35.0%	65.0%				

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

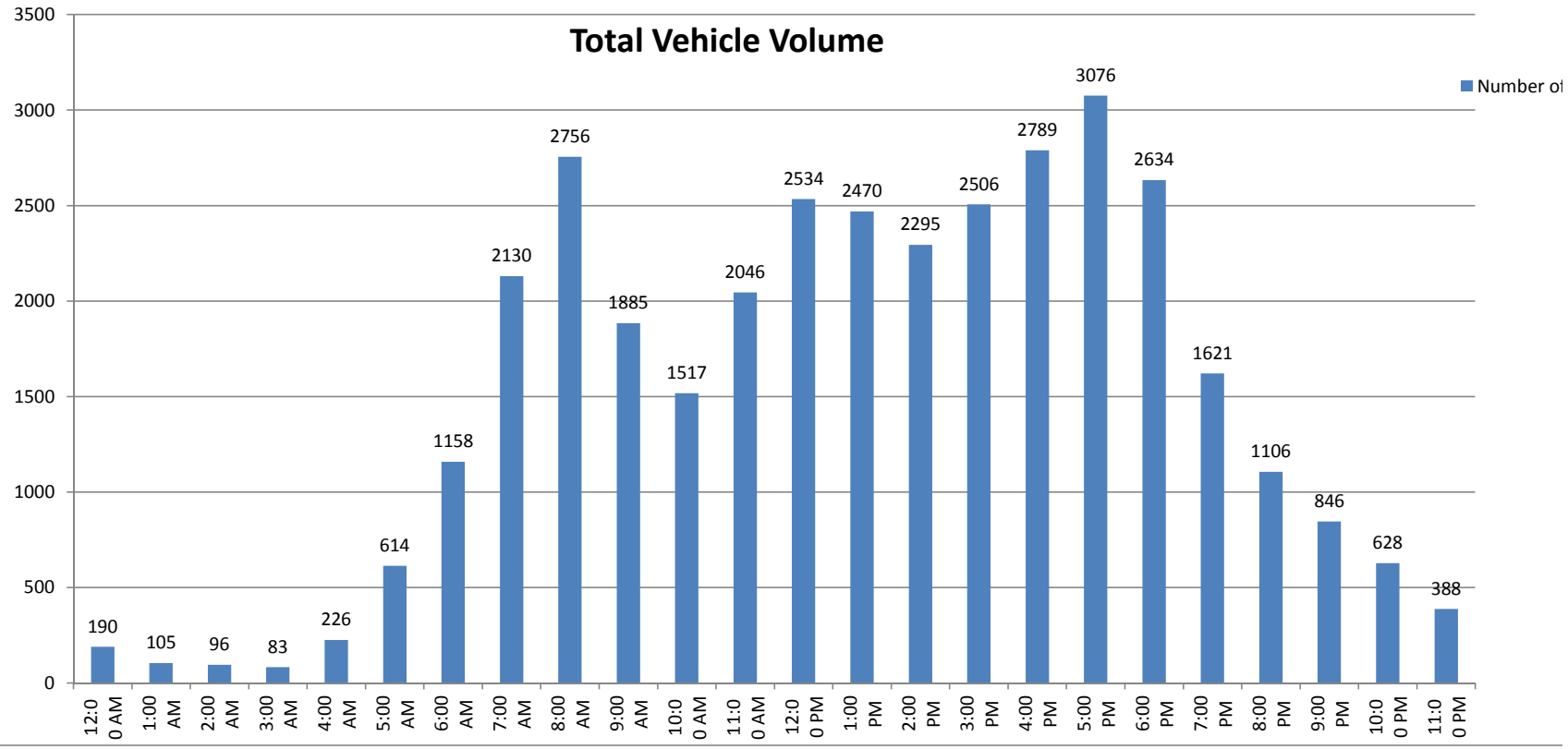
Barranca Parkway

B/ Armstrong Avenue - Von Karman Avenue

1/23/2014

Westbound

Start Time	1/23/2014
12:00 AM	190
1:00 AM	105
2:00 AM	96
3:00 AM	83
4:00 AM	226
5:00 AM	614
6:00 AM	1158
7:00 AM	2130
8:00 AM	2756
9:00 AM	1885
10:00 AM	1517
11:00 AM	2046
12:00 PM	2534
1:00 PM	2470
2:00 PM	2295
3:00 PM	2506
4:00 PM	2789
5:00 PM	3076
6:00 PM	2634
7:00 PM	1621
8:00 PM	1106
9:00 PM	846
10:00 PM	628
11:00 PM	388
Total	35699



Volumes represent the combined totals for both directions

Phone: 951-268-6268
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Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : BARRANCA PARKWAY
Segment : TUSTIN RANCH TO DISTRICT DR
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	18	44	316	1,122	30	74	254	1,160	48	118	570	2,282
12:15	8		294		11		286		19		580	
12:30	9		286		19		310		28		596	
12:45	9		226		14		310		23		536	
01:00	10	26	276	917	16	62	302	1,158	26	88	578	2,075
01:15	7		227		14		317		21		544	
01:30	5		202		22		298		27		500	
01:45	4		212		10		241		14		453	
02:00	6	24	226	938	10	38	248	991	16	62	474	1,929
02:15	5		217		6		247		11		464	
02:30	7		215		18		256		25		471	
02:45	6		280		4		240		10		520	
03:00	7	55	248	1,053	13	36	282	1,110	20	91	530	2,163
03:15	7		246		6		286		13		532	
03:30	16		240		6		288		22		528	
03:45	25		319		11		254		36		573	
04:00	13	86	296	1,280	11	63	282	1,079	24	149	578	2,359
04:15	14		306		12		261		26		567	
04:30	15		326		10		264		25		590	
04:45	44		352		30		272		74		624	
05:00	36	268	420	1,706	26	216	326	1,167	62	484	746	2,873
05:15	48		472		37		264		85		736	
05:30	68		370		53		305		121		675	
05:45	116		444		100		272		216		716	
06:00	90	490	368	1,206	101	628	226	938	191	1,118	594	2,144
06:15	101		378		128		258		229		636	
06:30	128		256		149		246		277		502	
06:45	171		204		250		208		421		412	
07:00	151	647	192	698	274	1,430	248	735	425	2,077	440	1,433
07:15	138		200		338		167		476		367	
07:30	168		168		378		156		546		324	
07:45	190		138		440		164		630		302	
08:00	178	748	118	456	436	1,676	130	499	614	2,424	248	955
08:15	202		116		391		137		593		253	
08:30	204		123		428		122		632		245	
08:45	164		99		421		110		585		209	
09:00	157	561	94	308	307	1,046	117	416	464	1,607	211	724
09:15	128		84		298		108		426		192	
09:30	139		70		224		112		363		182	
09:45	137		60		217		79		354		139	
10:00	170	612	56	200	210	742	72	296	380	1,354	128	496
10:15	148		56		164		94		312		150	
10:30	154		50		164		66		318		116	
10:45	140		38		204		64		344		102	
11:00	220	1,025	55	150	210	850	70	212	430	1,875	125	362
11:15	221		36		195		51		416		87	
11:30	292		28		207		51		499		79	
11:45	292		31		238		40		530		71	
Totals	4,586		10,034		6,861		9,761		11,447		19,795	
Split%	40.1		50.7		59.9		49.3					
Day Totals		14,620				16,622				31,242		
Day Splits		46.8				53.2						
Peak Hour	11:00		05:00		07:45		12:30		07:45		05:00	
Volume	1,025		1,706		1,695		1,239		2,469		2,873	
Factor	0.88		0.90		0.96		0.98		0.98		0.96	

Data File : D1405063

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : BARRANCA PARKWAY
Segment : DISTRICT DR TO JAMBOREE RD
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Day: Wednesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	38	88	304	1,126	22	63	321	1,333	60	151	625	2,459
12:15	16		262		11		344		27		606	
12:30	20		294		22		326		42		620	
12:45	14		266		8		342		22		608	
01:00	11	29	287	1,078	9	36	310	1,246	20	65	597	2,324
01:15	4		263		6		340		10		603	
01:30	12		271		15		296		27		567	
01:45	2		257		6		300		8		557	
02:00	8	23	256	1,112	5	21	262	1,084	13	44	518	2,196
02:15	6		264		6		266		12		530	
02:30	3		304		6		286		9		590	
02:45	6		288		4		270		10		558	
03:00	8	46	334	1,293	6	29	299	1,199	14	75	633	2,492
03:15	3		285		5		290		8		575	
03:30	12		344		8		308		20		652	
03:45	23		330		10		302		33		632	
04:00	6	63	382	1,571	9	77	306	1,173	15	140	688	2,744
04:15	16		378		12		286		28		664	
04:30	13		405		16		294		29		699	
04:45	28		406		40		287		68		693	
05:00	17	181	506	1,918	34	274	308	1,242	51	455	814	3,160
05:15	31		462		46		294		77		756	
05:30	53		474		74		312		127		786	
05:45	80		476		120		328		200		804	
06:00	78	371	436	1,437	111	655	355	1,238	189	1,026	791	2,675
06:15	84		420		130		307		214		727	
06:30	86		315		158		328		244		643	
06:45	123		266		256		248		379		514	
07:00	122	570	270	958	270	1,421	282	965	392	1,991	552	1,923
07:15	112		256		334		255		446		511	
07:30	170		228		397		230		567		458	
07:45	166		204		420		198		586		402	
08:00	173	666	214	772	453	1,722	170	627	626	2,388	384	1,399
08:15	144		204		413		180		557		384	
08:30	195		187		446		144		641		331	
08:45	154		167		410		133		564		300	
09:00	146	584	161	525	333	1,167	108	396	479	1,751	269	921
09:15	140		149		296		114		436		263	
09:30	136		103		258		95		394		198	
09:45	162		112		280		79		442		191	
10:00	150	704	110	318	248	992	60	232	398	1,696	170	550
10:15	188		81		234		70		422		151	
10:30	174		67		236		52		410		119	
10:45	192		60		274		50		466		110	
11:00	222	1,020	80	200	261	1,118	36	124	483	2,138	116	324
11:15	248		41		262		36		510		77	
11:30	272		39		287		22		559		61	
11:45	278		40		308		30		586		70	
Totals	4,345		12,308		7,575		10,859		11,920		23,167	
Split%	36.5		53.1		63.5		46.9					
Day Totals		16,653				18,434				35,087		
Day Splits		47.5				52.5						
Peak Hour	11:00		05:00		07:45		12:00		07:45		05:00	
Volume	1,020		1,918		1,732		1,333		2,410		3,160	
Factor	0.92		0.95		0.96		0.97		0.94		0.97	

* Data File : D1405064

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Barranca Parkway
B/ Jamboree Road - Construction Circle

File Name 054
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
1/23/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	19	264			15	260				
12:15	18	266			16	235				
12:30	14	233			14	257				
12:45	12	226	63	989	6	285	51	1037	114	2026
1:00	13	246			8	253				
1:15	7	247			7	261				
1:30	11	239			10	235				
1:45	10	247	41	979	5	240	30	989	71	1968
2:00	5	203			6	231				
2:15	12	201			2	235				
2:30	4	201			10	246				
2:45	7	220	28	825	8	248	26	960	54	1785
3:00	7	203			3	252				
3:15	3	229			6	245				
3:30	11	206			8	274				
3:45	12	230	33	868	8	260	25	1031	58	1899
4:00	10	200			8	262				
4:15	16	270			3	271				
4:30	29	250			11	257				
4:45	46	269	101	989	16	251	38	1041	139	2030
5:00	48	301			22	322				
5:15	61	294			21	316				
5:30	82	261			37	331				
5:45	111	275	302	1131	63	341	143	1310	445	2441
6:00	106	259			90	312				
6:15	137	250			106	280				
6:30	128	253			127	250				
6:45	157	193	528	955	159	214	482	1056	1010	2011
7:00	174	198			151	202				
7:15	172	185			211	174				
7:30	181	179			187	159				
7:45	200	111	727	673	250	154	799	689	1526	1362
8:00	210	139			219	140				
8:15	218	143			272	119				
8:30	256	133			241	85				
8:45	231	98	915	513	238	77	970	421	1885	934
9:00	203	91			188	112				
9:15	199	79			182	85				
9:30	171	85			183	84				
9:45	191	60	764	315	184	76	737	357	1501	672
10:00	135	59			171	69				
10:15	153	66			179	68				
10:30	178	66			209	57				
10:45	196	47	662	238	206	55	765	249	1427	487
11:00	199	40			164	51				
11:15	180	40			211	37				
11:30	211	25			233	35				
11:45	236	20	826	125	231	17	839	140	1665	265
Totals	4990	8600			4905	9280				
Combined Totals		13590				14185				
ADT										27775
AM Peak Hour	800	AM			745	AM				
Volume	915				982					
P.H.F.	0.894				0.903					
PM Peak Hour		500	PM			500	PM			
Volume		1131				1310				
P.H.F.		0.939				0.960				
Percentage	36.7%	63.3%			34.6%	65.4%				

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

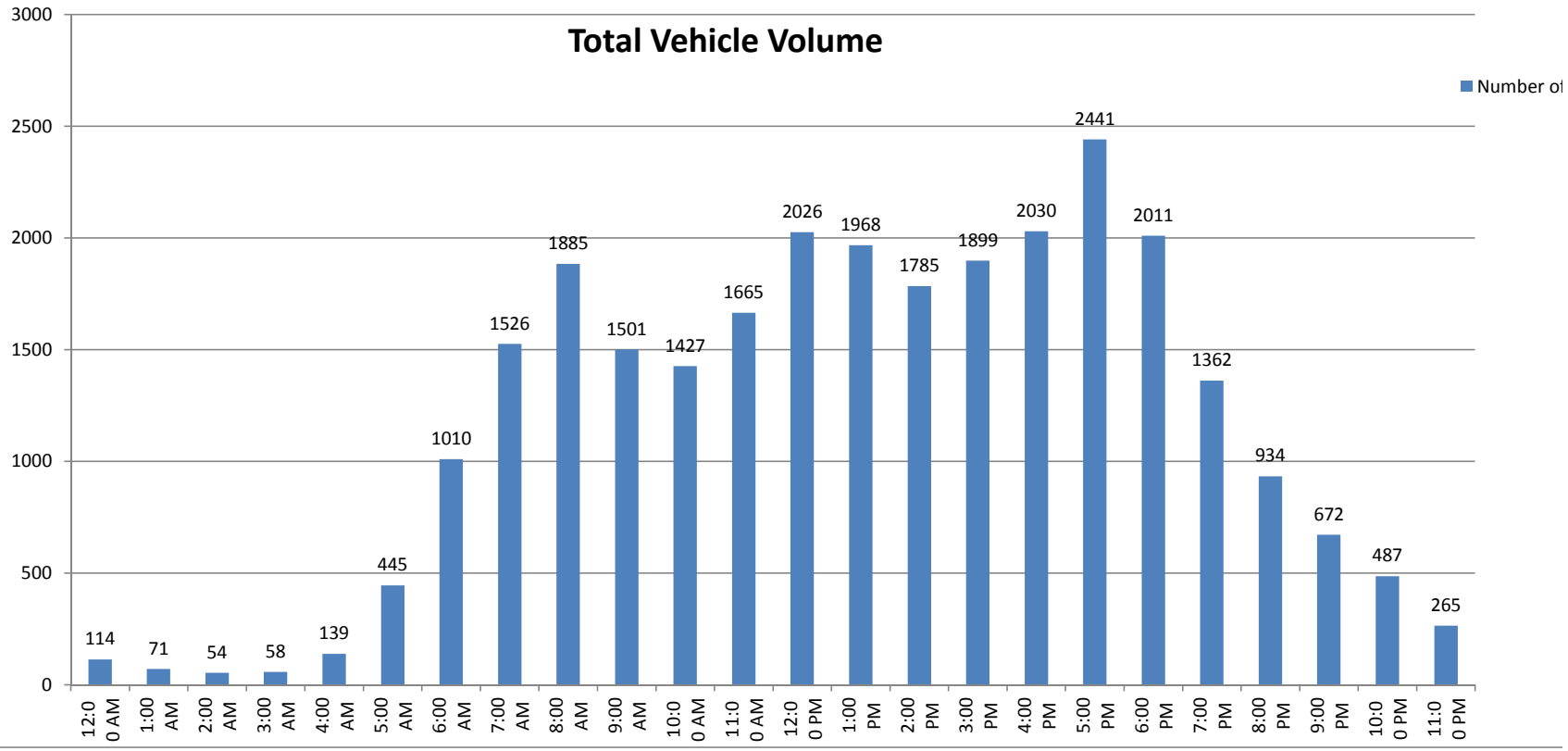
24 Hour Volume Plot

Barranca Parkway
B/ Jamboree Road - Construction Circle

1/23/2014

Westbound

Start Time	1/23/2014
12:00 AM	114
1:00 AM	71
2:00 AM	54
3:00 AM	58
4:00 AM	139
5:00 AM	445
6:00 AM	1010
7:00 AM	1526
8:00 AM	1885
9:00 AM	1501
10:00 AM	1427
11:00 AM	1665
12:00 PM	2026
1:00 PM	1968
2:00 PM	1785
3:00 PM	1899
4:00 PM	2030
5:00 PM	2441
6:00 PM	2011
7:00 PM	1362
8:00 PM	934
9:00 PM	672
10:00 PM	487
11:00 PM	265
Total	27775



Volumes represent the combined totals for both directions

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Barranca Parkway
B/ Santa Rosa - Culver Drive

File Name 059
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
1/22/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	12	234			16	200				
12:15	11	198			8	223				
12:30	6	212			4	210				
12:45	8	217	37	861	9	208	37	841	74	1702
1:00	5	230			1	227				
1:15	4	231			5	187				
1:30	6	228			4	182				
1:45	4	219	19	908	5	194	15	790	34	1698
2:00	1	204			1	169				
2:15	2	208			2	212				
2:30	1	214			0	163				
2:45	1	231	5	857	3	195	6	739	11	1596
3:00	4	231			1	197				
3:15	4	220			2	222				
3:30	3	173			1	211				
3:45	3	222	14	846	6	180	10	810	24	1656
4:00	8	219			5	202				
4:15	5	225			1	211				
4:30	7	270			3	206				
4:45	14	253	34	967	7	229	16	848	50	1815
5:00	10	260			2	252				
5:15	23	314			11	257				
5:30	27	311			19	252				
5:45	42	315	102	1200	17	260	49	1021	151	2221
6:00	30	317			23	241				
6:15	38	261			20	244				
6:30	54	280			41	220				
6:45	98	256	220	1114	64	209	148	914	368	2028
7:00	104	185			73	185				
7:15	103	194			113	151				
7:30	253	188			177	137				
7:45	277	170	737	737	286	93	649	566	1386	1303
8:00	175	186			289	97				
8:15	214	136			241	98				
8:30	179	120			232	113				
8:45	198	105	766	547	212	96	974	404	1740	951
9:00	145	87			193	94				
9:15	151	97			146	97				
9:30	148	93			131	59				
9:45	159	57	603	334	177	68	647	318	1250	652
10:00	133	74			148	56				
10:15	152	43			141	41				
10:30	165	37			118	29				
10:45	153	36	603	190	155	22	562	148	1165	338
11:00	159	30			163	22				
11:15	169	16			158	23				
11:30	213	25			174	20				
11:45	214	14	755	85	186	14	681	79	1436	164
Totals	3895	8646			3794	7478				
Combined Totals		12541				11272				
ADT										23813
AM Peak Hour	730	AM			745	AM				
Volume	919				1048					
P.H.F.	0.829				0.907					
PM Peak Hour		515	PM			500	PM			
Volume		1257				1021				
P.H.F.		0.991				0.982				
Percentage	31.1%	68.9%			33.7%	66.3%				

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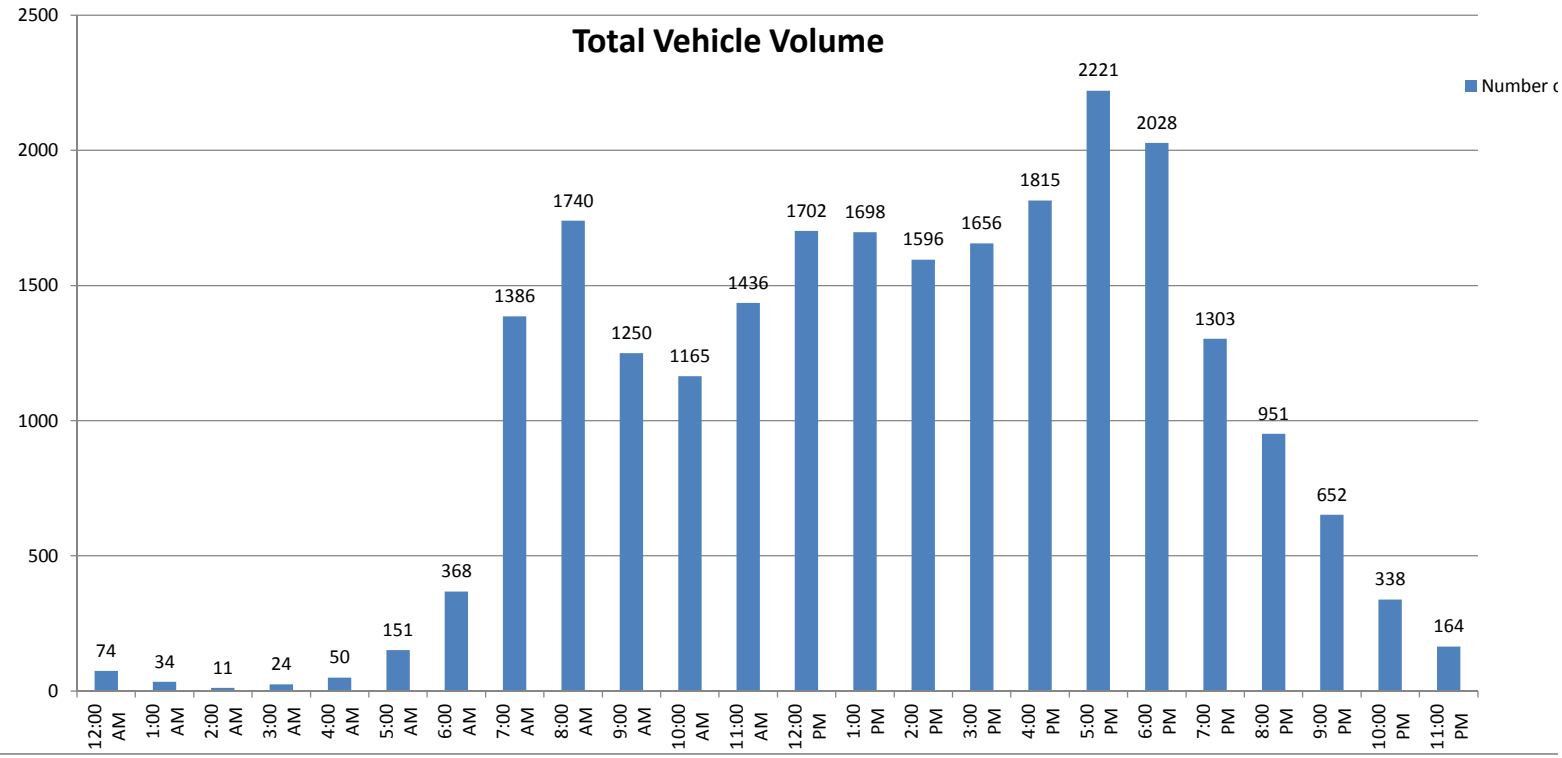
24 Hour Volume Plot

Barranca Parkway
B/ Santa Rosa - Culver Drive

1/22/2014

Westbound

Start Time	1/22/2014
12:00 AM	74
1:00 AM	34
2:00 AM	11
3:00 AM	24
4:00 AM	50
5:00 AM	151
6:00 AM	368
7:00 AM	1386
8:00 AM	1740
9:00 AM	1250
10:00 AM	1165
11:00 AM	1436
12:00 PM	1702
1:00 PM	1698
2:00 PM	1596
3:00 PM	1656
4:00 PM	1815
5:00 PM	2221
6:00 PM	2028
7:00 PM	1303
8:00 PM	951
9:00 PM	652
10:00 PM	338
11:00 PM	164
Total	23813



Volumes represent the combined totals for both directions

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City of Irvine
Alton Parkway
B/ Redhill Avenue - Von Karman Avenue

File Name 002
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
3/27/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	6	122			13	145				
12:15	3	149			15	109				
12:30	3	111			6	155				
12:45	5	112	17	494	8	151	42	560	59	1054
1:00	2	106			2	163				
1:15	3	102			6	106				
1:30	4	93			10	140				
1:45	0	96	9	397	0	120	18	529	27	926
2:00	1	66			4	134				
2:15	3	83			2	97				
2:30	3	102			6	153				
2:45	1	89	8	340	2	142	14	526	22	866
3:00	1	102			7	140				
3:15	1	95			4	101				
3:30	6	113			12	159				
3:45	2	107	10	417	7	151	30	551	40	968
4:00	9	125			14	184				
4:15	16	122			6	164				
4:30	18	164			14	242				
4:45	32	170	75	581	15	219	49	809	124	1390
5:00	23	242			12	227				
5:15	21	218			11	213				
5:30	23	170			16	250				
5:45	61	163	128	793	26	192	65	882	193	1675
6:00	37	150			39	175				
6:15	37	131			34	155				
6:30	43	106			64	110				
6:45	69	97	186	484	58	110	195	550	381	1034
7:00	69	84			55	97				
7:15	77	64			84	65				
7:30	96	56			100	60				
7:45	129	37	371	241	174	45	413	267	784	508
8:00	121	34			161	49				
8:15	106	31			143	44				
8:30	99	29			177	22				
8:45	115	33	441	127	147	33	628	148	1069	275
9:00	80	33			136	29				
9:15	66	26			89	32				
9:30	56	16			90	25				
9:45	58	25	260	100	79	17	394	103	654	203
10:00	59	21			76	34				
10:15	55	17			69	13				
10:30	72	11			69	43				
10:45	53	10	239	59	67	27	281	117	520	176
11:00	88	13			79	24				
11:15	89	10			78	17				
11:30	146	8			87	3				
11:45	138	6	461	37	96	15	340	59	801	96
Totals	2205	4070			2469	5101				
Combined Totals		6275				7570				
ADT										13845
AM Peak Hour	1100	AM			745	AM				
Volume	461				655					
P.H.F.	0.789				0.925					
PM Peak Hour		445	PM			445	PM			
Volume		800				909				
P.H.F.		0.826				0.909				
Percentage	35.1%	64.9%			32.6%	67.4%				

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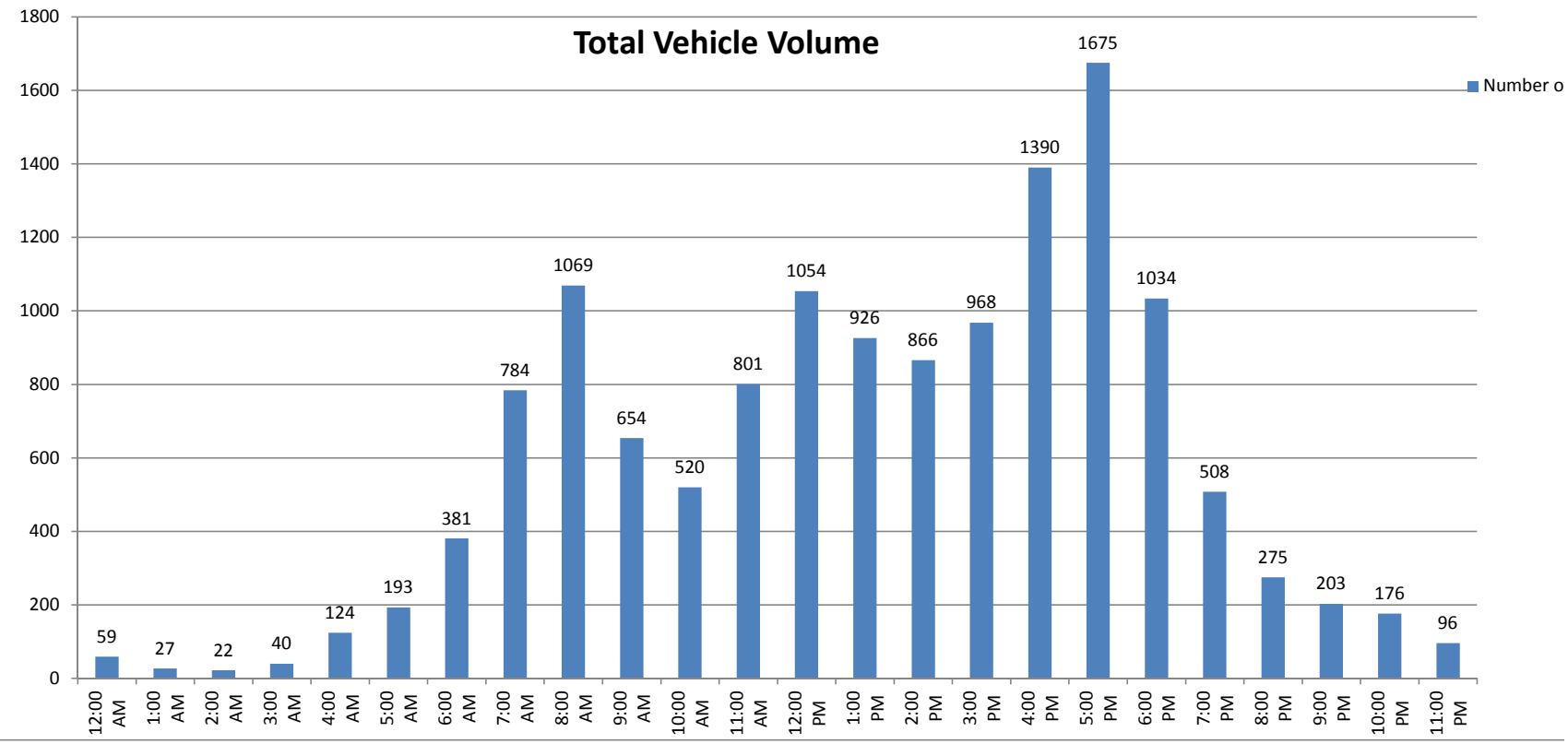
24 Hour Volume Plot

Alton Parkway
B/ Redhill Avenue - Von Karman Avenue
3/27/2014

Westbound

Start Time	3/27/2014
12:00 AM	59
1:00 AM	27
2:00 AM	22
3:00 AM	40
4:00 AM	124
5:00 AM	193
6:00 AM	381
7:00 AM	784
8:00 AM	1069
9:00 AM	654
10:00 AM	520
11:00 AM	801
12:00 PM	1054
1:00 PM	926
2:00 PM	866
3:00 PM	968
4:00 PM	1390
5:00 PM	1675
6:00 PM	1034
7:00 PM	508
8:00 PM	275
9:00 PM	203
10:00 PM	176
11:00 PM	96
Total	13845



Volumes represent the combined totals for both directions

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City of Irvine
Alton Parkway
B/ Von Karman Avenue - Jamboree Road

File Name 003
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
3/27/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	13	200			22	136				
12:15	3	195			7	141				
12:30	3	143			7	184				
12:45	5	132	24	670	10	212	46	673	70	1343
1:00	4	133			2	162				
1:15	1	130			8	150				
1:30	3	125			5	145				
1:45	1	126	9	514	3	155	18	612	27	1126
2:00	1	104			4	146				
2:15	4	105			1	132				
2:30	2	124			9	128				
2:45	3	107	10	440	3	148	17	554	27	994
3:00	4	125			5	108				
3:15	3	88			2	133				
3:30	4	133			9	130				
3:45	3	136	14	482	11	147	27	518	41	1000
4:00	11	194			12	189				
4:15	17	171			10	142				
4:30	13	213			24	204				
4:45	32	247	73	825	20	177	66	712	139	1537
5:00	24	334			17	175				
5:15	27	293			24	181				
5:30	31	304			35	195				
5:45	54	252	136	1183	58	146	134	697	270	1880
6:00	20	265			67	174				
6:15	35	222			38	119				
6:30	36	169			98	115				
6:45	45	136	136	792	99	90	302	498	438	1290
7:00	42	113			103	85				
7:15	56	108			152	68				
7:30	65	83			166	62				
7:45	81	66	244	370	297	50	718	265	962	635
8:00	69	66			251	49				
8:15	80	58			285	35				
8:30	77	59			201	42				
8:45	97	58	323	241	199	36	936	162	1259	403
9:00	58	65			173	32				
9:15	61	55			130	36				
9:30	61	25			100	38				
9:45	72	33	252	178	106	24	509	130	761	308
10:00	77	37			82	30				
10:15	75	37			113	26				
10:30	80	23			76	56				
10:45	82	16	314	113	96	34	367	146	681	259
11:00	104	19			87	24				
11:15	118	8			105	19				
11:30	167	10			137	8				
11:45	173	10	562	47	141	11	470	62	1032	109
Totals	2097	5855			3610	5029				
Combined Totals		7952				8639				
ADT										16591
AM Peak Hour	1100	AM			745	AM				
Volume	562				1034					
P.H.F.	0.812				0.870					
PM Peak Hour		500	PM			430	PM			
Volume		1183				737				
P.H.F.		0.885				0.903				
Percentage	26.4%	73.6%			41.8%	58.2%				

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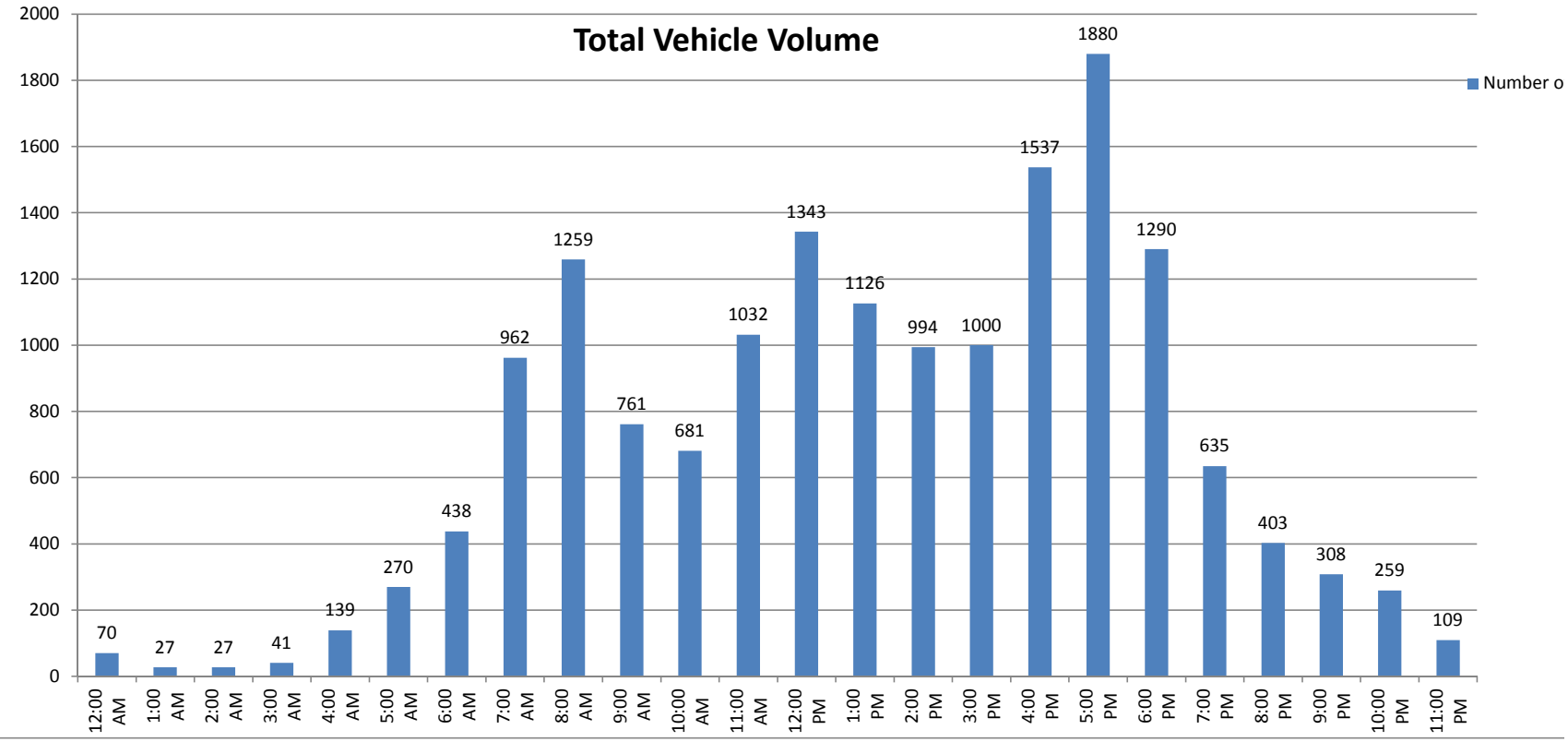
24 Hour Volume Plot

Alton Parkway
B/ Von Karman Avenue - Jamboree Road
3/27/2014

Westbound

Start Time	3/27/2014
12:00 AM	70
1:00 AM	27
2:00 AM	27
3:00 AM	41
4:00 AM	139
5:00 AM	270
6:00 AM	438
7:00 AM	962
8:00 AM	1259
9:00 AM	761
10:00 AM	681
11:00 AM	1032
12:00 PM	1343
1:00 PM	1126
2:00 PM	994
3:00 PM	1000
4:00 PM	1537
5:00 PM	1880
6:00 PM	1290
7:00 PM	635
8:00 PM	403
9:00 PM	308
10:00 PM	259
11:00 PM	109
Total	16591



Volumes represent the combined totals for both directions

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City of Irvine
Alton Parkway
B/ Jamboree Road - Murphy Avenue

File Name 004
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
3/27/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	21	187			17	152				
12:15	23	170			10	173				
12:30	15	156			11	178				
12:45	15	134	74	647	14	196	52	699	126	1346
1:00	12	140			10	180				
1:15	5	135			4	179				
1:30	4	136			8	163				
1:45	4	138	25	549	2	171	24	693	49	1242
2:00	4	149			4	155				
2:15	2	137			2	147				
2:30	4	128			3	144				
2:45	3	137	13	551	5	159	14	605	27	1156
3:00	4	148			0	139				
3:15	1	122			1	157				
3:30	3	146			2	153				
3:45	4	158	12	574	6	163	9	612	21	1186
4:00	5	182			7	225				
4:15	6	187			7	181				
4:30	13	203			10	226				
4:45	20	221	44	793	16	216	40	848	84	1641
5:00	15	288			9	240				
5:15	15	263			24	238				
5:30	10	240			22	248				
5:45	34	258	74	1049	42	235	97	961	171	2010
6:00	36	221			30	223				
6:15	40	212			36	186				
6:30	46	216			53	169				
6:45	61	174	183	823	65	159	184	737	367	1560
7:00	75	170			75	154				
7:15	78	152			114	144				
7:30	109	111			154	105				
7:45	136	99	398	532	229	129	572	532	970	1064
8:00	114	125			232	101				
8:15	120	104			252	74				
8:30	113	96			211	95				
8:45	126	95	473	420	174	72	869	342	1342	762
9:00	120	93			172	83				
9:15	81	80			139	91				
9:30	72	62			117	68				
9:45	78	59	351	294	112	52	540	294	891	588
10:00	103	81			100	63				
10:15	58	61			115	51				
10:30	70	51			94	30				
10:45	87	39	318	232	113	46	422	190	740	422
11:00	114	28			139	31				
11:15	104	30			130	18				
11:30	141	25			142	19				
11:45	120	31	479	114	152	21	563	89	1042	203
Totals	2444	6578			3386	6602				
Combined Totals		9022				9988				
ADT										19010
AM Peak Hour	745	AM			745	AM				
Volume	483				924					
P.H.F.	0.888				0.917					
PM Peak Hour		500	PM			500	PM			
Volume		1049				961				
P.H.F.		0.911				0.969				
Percentage	27.1%	72.9%			33.9%	66.1%				

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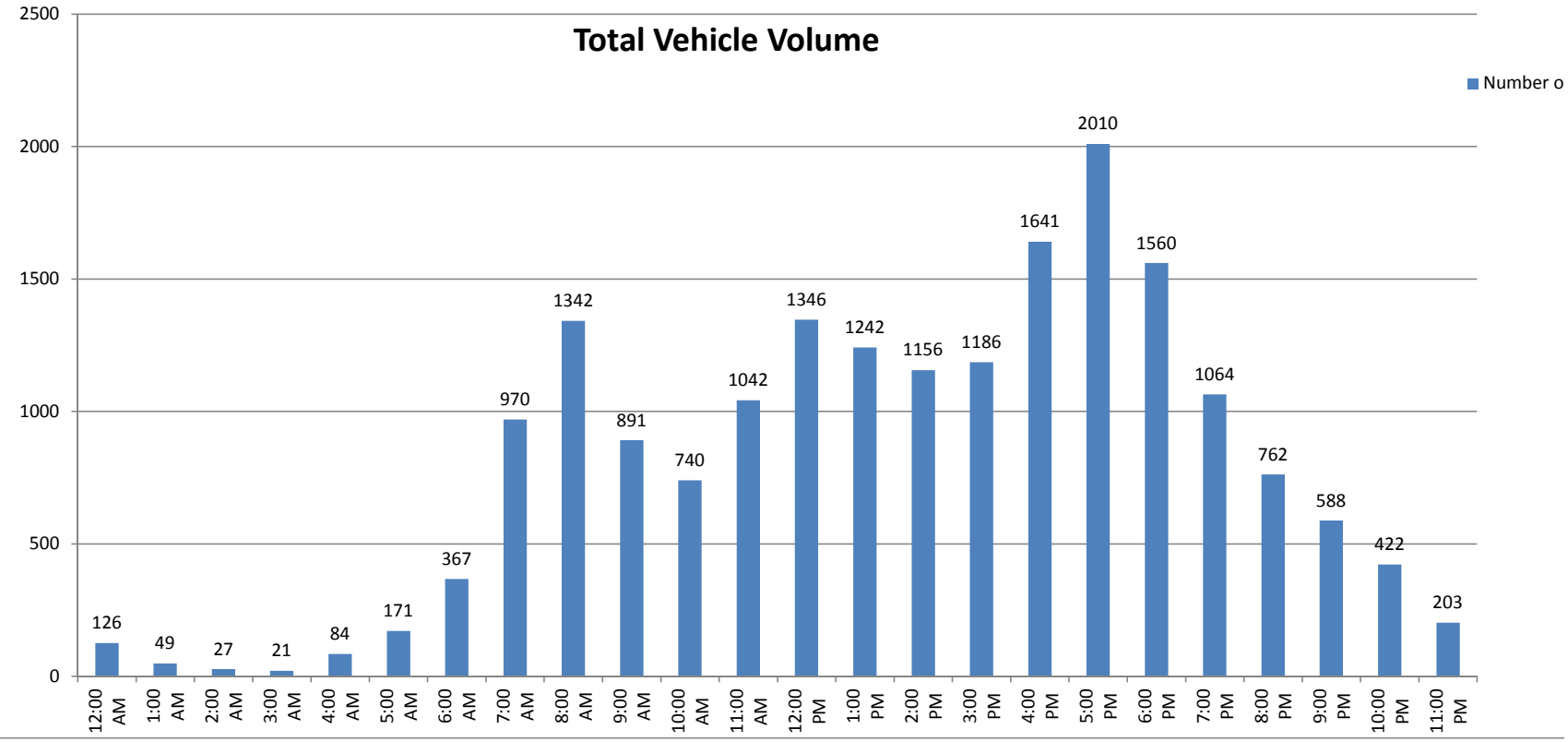
24 Hour Volume Plot

Alton Parkway
B/ Jamboree Road - Murphy Avenue

3/27/2014

Westbound

Start Time	3/27/2014
12:00 AM	126
1:00 AM	49
2:00 AM	27
3:00 AM	21
4:00 AM	84
5:00 AM	171
6:00 AM	367
7:00 AM	970
8:00 AM	1342
9:00 AM	891
10:00 AM	740
11:00 AM	1042
12:00 PM	1346
1:00 PM	1242
2:00 PM	1156
3:00 PM	1186
4:00 PM	1641
5:00 PM	2010
6:00 PM	1560
7:00 PM	1064
8:00 PM	762
9:00 PM	588
10:00 PM	422
11:00 PM	203
Total	19010



Volumes represent the combined totals for both directions

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City of Irvine
Alton Parkway
B/ San Marino - Culver Drive

File Name 008
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
3/27/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	16	189			13	222				
12:15	20	170			9	245				
12:30	12	177			8	255				
12:45	7	176	55	712	9	253	39	975	94	1687
1:00	12	179			6	206				
1:15	9	197			7	202				
1:30	5	185			7	229				
1:45	6	195	32	756	8	210	28	847	60	1603
2:00	4	204			5	228				
2:15	6	191			6	241				
2:30	2	210			2	190				
2:45	0	234	12	839	9	234	22	893	34	1732
3:00	7	241			3	214				
3:15	6	170			1	274				
3:30	4	213			2	257				
3:45	4	206	21	830	7	247	13	992	34	1822
4:00	4	239			10	241				
4:15	7	242			9	240				
4:30	9	213			8	247				
4:45	8	259	28	953	14	254	41	982	69	1935
5:00	13	301			21	266				
5:15	15	324			27	281				
5:30	12	331			26	300				
5:45	17	266	57	1222	40	288	114	1135	171	2357
6:00	25	305			43	282				
6:15	48	256			43	260				
6:30	47	261			64	218				
6:45	73	243	193	1065	96	245	246	1005	439	2070
7:00	79	216			124	185				
7:15	84	203			152	194				
7:30	160	179			173	156				
7:45	196	149	519	747	269	175	718	710	1237	1457
8:00	161	137			290	152				
8:15	150	136			274	128				
8:30	137	127			206	115				
8:45	142	98	590	498	205	102	975	497	1565	995
9:00	106	105			199	88				
9:15	115	118			173	80				
9:30	99	78			171	72				
9:45	108	82	428	383	141	75	684	315	1112	698
10:00	116	83			149	81				
10:15	103	71			176	60				
10:30	135	45			189	48				
10:45	143	33	497	232	169	40	683	229	1180	461
11:00	140	48			169	29				
11:15	122	34			139	22				
11:30	162	24			196	25				
11:45	147	18	571	124	230	24	734	100	1305	224
Totals	3003	8361			4297	8680				
Combined Totals		11364				12977				
ADT										24341
AM Peak Hour	730	AM			745	AM				
Volume	667				1039					
P.H.F.	0.851				0.896					
PM Peak Hour		515	PM			515	PM			
Volume		1226				1151				
P.H.F.		0.926				0.959				
Percentage	26.4%	73.6%			33.1%	66.9%				

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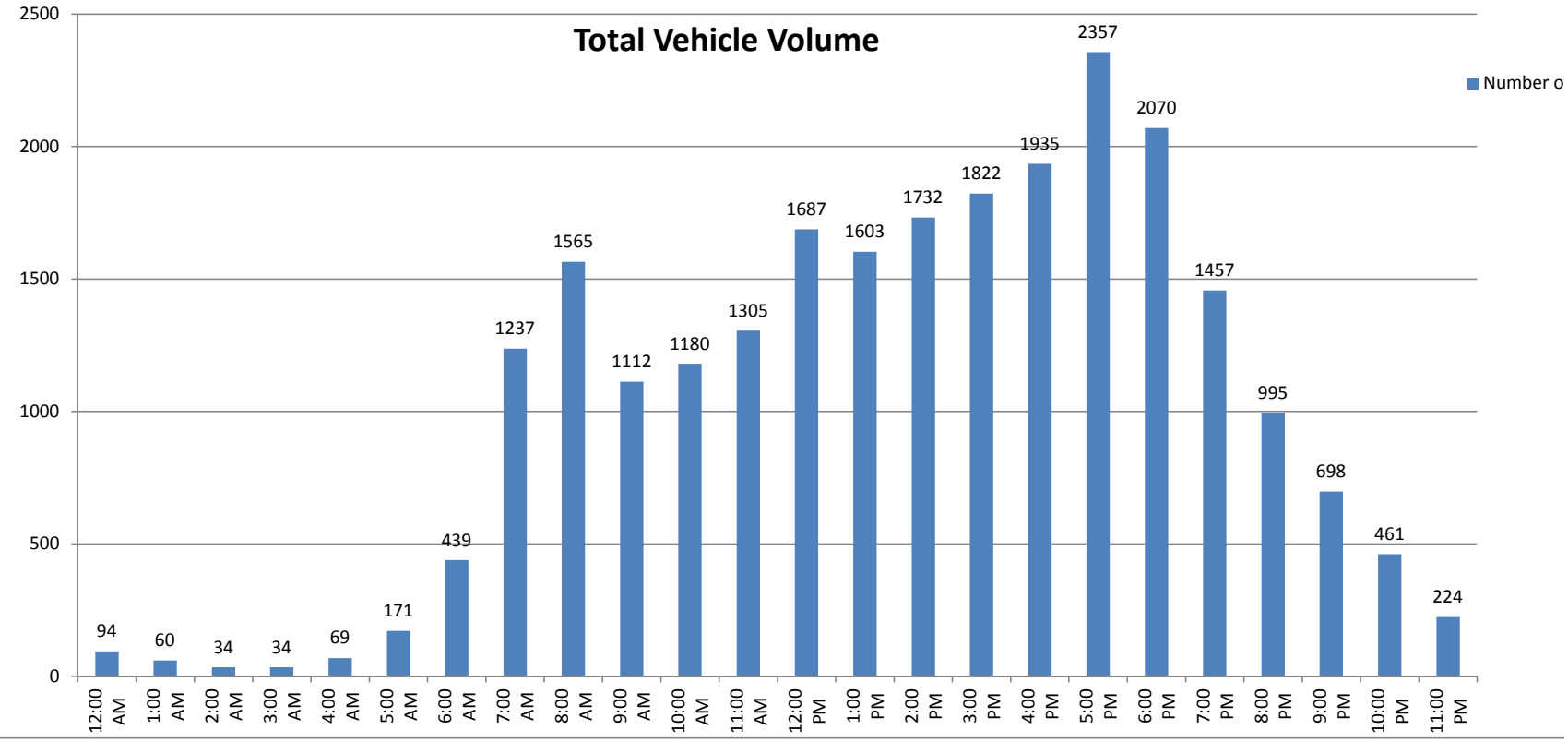
24 Hour Volume Plot

Alton Parkway
B/ San Marino - Culver Drive

3/27/2014

Westbound

Start Time	3/27/2014
12:00 AM	94
1:00 AM	60
2:00 AM	34
3:00 AM	34
4:00 AM	69
5:00 AM	171
6:00 AM	439
7:00 AM	1237
8:00 AM	1565
9:00 AM	1112
10:00 AM	1180
11:00 AM	1305
12:00 PM	1687
1:00 PM	1603
2:00 PM	1732
3:00 PM	1822
4:00 PM	1935
5:00 PM	2357
6:00 PM	2070
7:00 PM	1457
8:00 PM	995
9:00 PM	698
10:00 PM	461
11:00 PM	224
Total	24341



Volumes represent the combined totals for both directions

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City of Irvine
McGaw Aveneu
B/ Redhill Avenue - Von Karman Avenue

File Name 240
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/4/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	2	77			4	64				
12:15	3	93			2	61				
12:30	4	66			0	62				
12:45	0	68	9	304	1	80	7	267	16	571
1:00	4	83			0	84				
1:15	0	67			2	76				
1:30	1	41			3	71				
1:45	1	46	6	237	5	67	10	298	16	535
2:00	3	55			7	62				
2:15	2	54			7	73				
2:30	0	51			0	75				
2:45	2	60	7	220	2	50	16	260	23	480
3:00	4	53			1	44				
3:15	1	45			4	35				
3:30	8	84			1	65				
3:45	14	57	27	239	7	70	13	214	40	453
4:00	8	88			11	47				
4:15	19	90			5	40				
4:30	17	95			6	64				
4:45	28	100	72	373	10	49	32	200	104	573
5:00	11	152			6	53				
5:15	34	184			7	62				
5:30	15	154			20	63				
5:45	37	123	97	613	21	46	54	224	151	837
6:00	29	119			33	40				
6:15	11	89			38	36				
6:30	26	67			20	21				
6:45	43	49	109	324	32	24	123	121	232	445
7:00	28	29			55	31				
7:15	33	33			59	27				
7:30	41	26			54	28				
7:45	38	16	140	104	100	9	268	95	408	199
8:00	45	21			103	15				
8:15	34	14			91	10				
8:30	46	15			80	10				
8:45	41	24	166	74	88	6	362	41	528	115
9:00	43	13			82	5				
9:15	28	33			67	3				
9:30	30	15			49	7				
9:45	39	9	140	70	73	4	271	19	411	89
10:00	37	8			54	21				
10:15	32	6			44	9				
10:30	30	3			36	8				
10:45	34	4	133	21	33	5	167	43	300	64
11:00	38	4			30	2				
11:15	55	5			38	2				
11:30	76	2			51	4				
11:45	87	2	256	13	62	3	181	11	437	24
Totals	1162	2592			1504	1793				
Combined Totals		3754				3297				
ADT										7051
AM Peak Hour	1100	AM			745	AM				
Volume	256				374					
P.H.F.	0.736				0.908					
PM Peak Hour		500	PM			1245	PM			
Volume		613				311				
P.H.F.		0.833				0.926				
Percentage	31.0%	69.0%			45.6%	54.4%				

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24 Hour Volume Plot

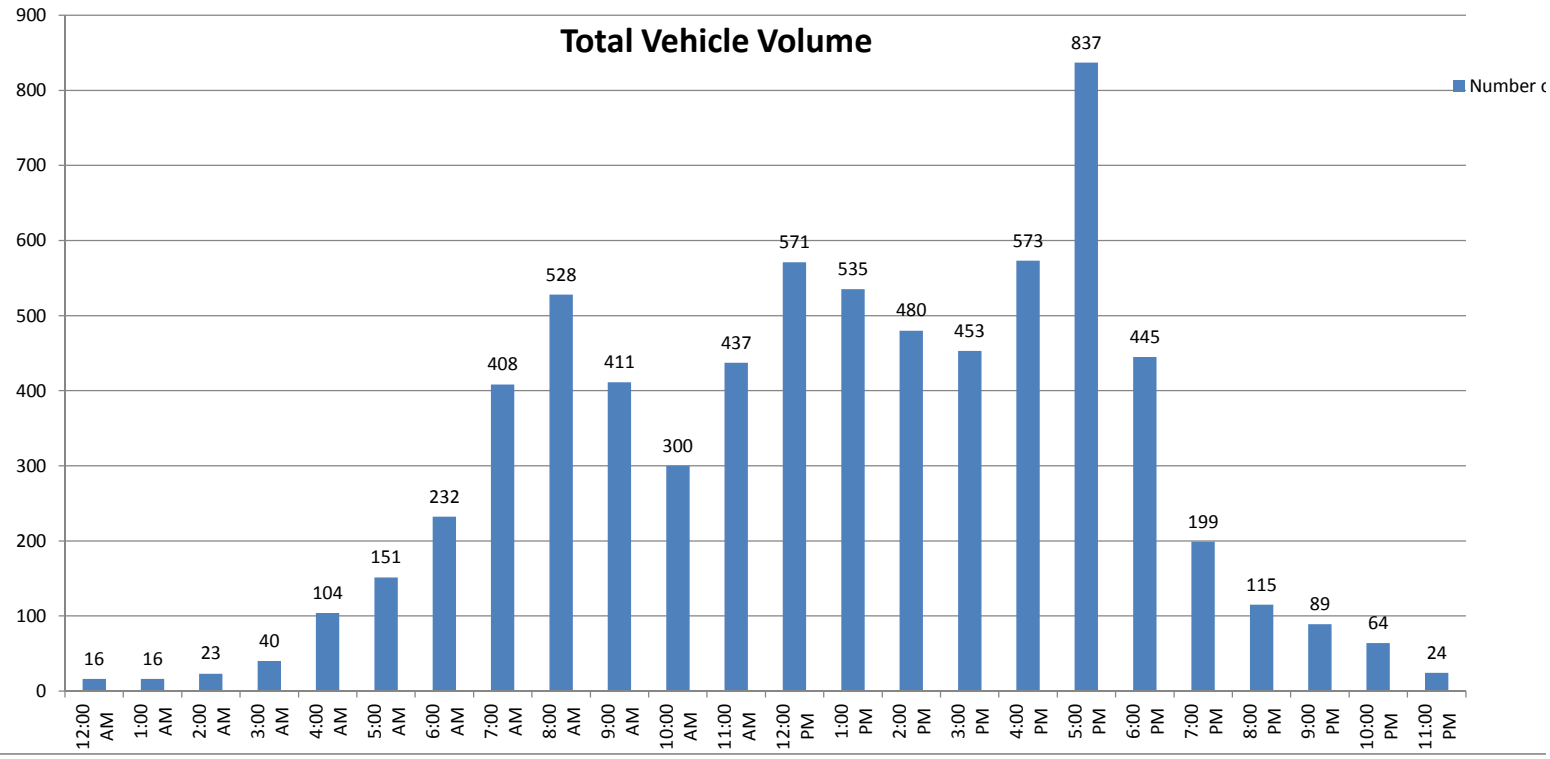
McGaw Aveneu

B/ Redhill Avenue - Von Karman Avenue

2/4/2014

Westbound

Start Time	2/4/2014
12:00 AM	16
1:00 AM	16
2:00 AM	23
3:00 AM	40
4:00 AM	104
5:00 AM	151
6:00 AM	232
7:00 AM	408
8:00 AM	528
9:00 AM	411
10:00 AM	300
11:00 AM	437
12:00 PM	571
1:00 PM	535
2:00 PM	480
3:00 PM	453
4:00 PM	573
5:00 PM	837
6:00 PM	445
7:00 PM	199
8:00 PM	115
9:00 PM	89
10:00 PM	64
11:00 PM	24
Total	7051



Volumes represent the combined totals for both directions

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City of Irvine
McGaw Aveneu
B/ Von Karman Avenue - Jamboree Road

File Name 241
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/5/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	1	63			2	50				
12:15	1	71			2	57				
12:30	1	46			3	70				
12:45	3	62	6	242	1	91	8	268	14	510
1:00	0	75			2	84				
1:15	0	65			4	62				
1:30	0	54			3	71				
1:45	3	54	3	248	1	47	10	264	13	512
2:00	1	48			9	78				
2:15	6	35			2	49				
2:30	5	57			3	87				
2:45	10	48	22	188	4	41	18	255	40	443
3:00	6	57			0	50				
3:15	3	40			2	46				
3:30	10	53			5	86				
3:45	22	68	41	218	4	41	11	223	52	441
4:00	16	80			9	58				
4:15	23	52			6	48				
4:30	19	103			10	70				
4:45	39	106	97	341	10	64	35	240	132	581
5:00	20	177			13	73				
5:15	42	194			10	50				
5:30	30	164			17	68				
5:45	56	135	148	670	29	37	69	228	217	898
6:00	19	97			47	41				
6:15	17	79			34	34				
6:30	26	77			18	20				
6:45	38	61	100	314	42	23	141	118	241	432
7:00	30	48			39	23				
7:15	39	34			47	32				
7:30	38	30			61	30				
7:45	57	26	164	138	116	13	263	98	427	236
8:00	40	12			84	17				
8:15	51	20			76	7				
8:30	33	19			77	18				
8:45	42	21	166	72	76	26	313	68	479	140
9:00	34	37			71	24				
9:15	34	37			52	18				
9:30	26	15			59	18				
9:45	35	11	129	100	34	9	216	69	345	169
10:00	25	21			34	30				
10:15	27	10			28	10				
10:30	23	5			32	12				
10:45	27	1	102	37	36	9	130	61	232	98
11:00	44	2			22	2				
11:15	59	3			41	5				
11:30	71	5			44	6				
11:45	75	4	249	14	46	2	153	15	402	29
Totals	1227	2582			1367	1907				
Combined Totals		3809				3274				
ADT										7083
AM Peak Hour	1100	AM			745	AM				
Volume	249				353					
P.H.F.	0.830				0.761					
PM Peak Hour		500	PM			1245	PM			
Volume		670				308				
P.H.F.		0.863				0.846				
Percentage	32.2%	67.8%			41.8%	58.2%				

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24 Hour Volume Plot

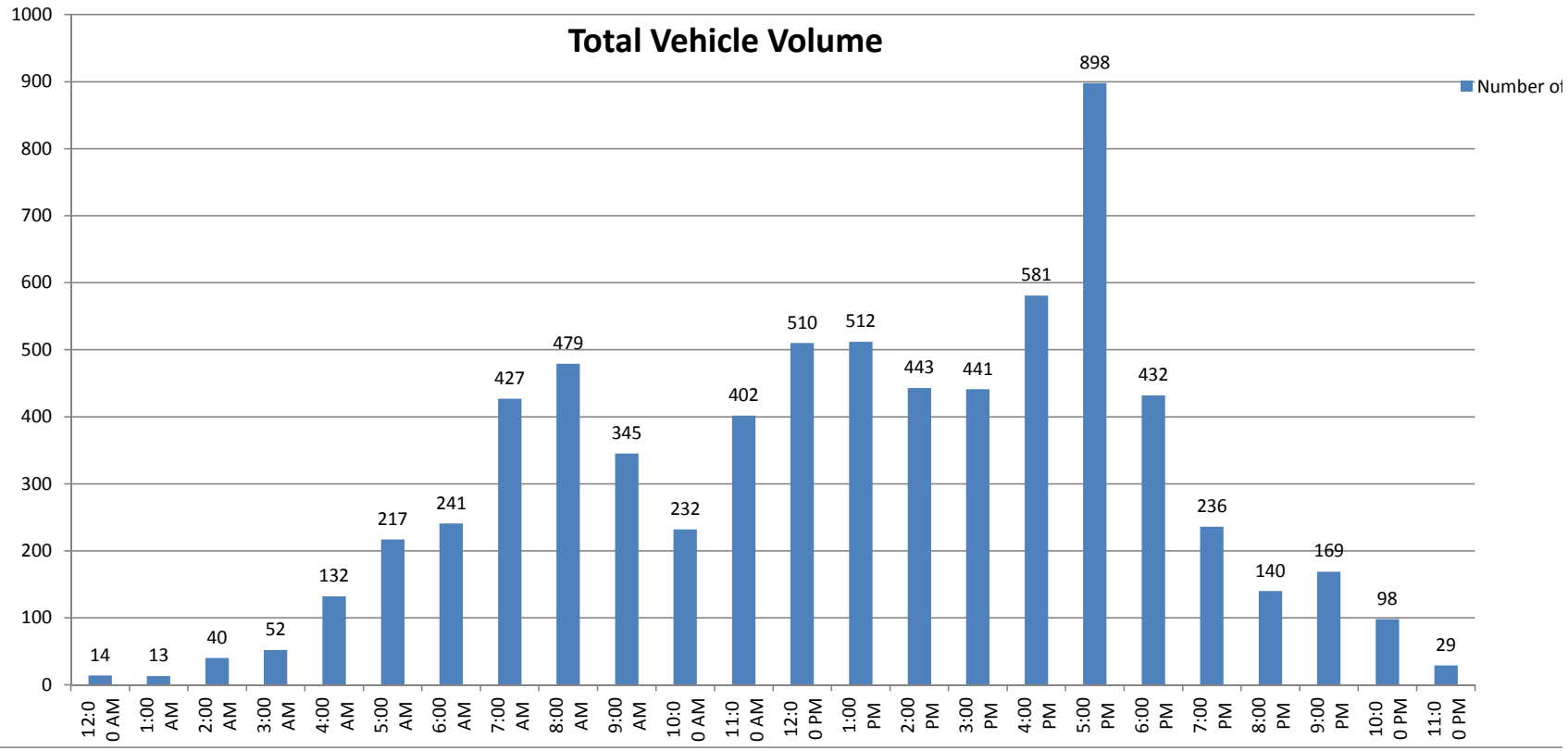
McGaw Aveneu

B/ Von Karman Avenue - Jamboree Road

2/5/2014

Westbound

Start Time	2/5/2014
12:00 AM	14
1:00 AM	13
2:00 AM	40
3:00 AM	52
4:00 AM	132
5:00 AM	217
6:00 AM	241
7:00 AM	427
8:00 AM	479
9:00 AM	345
10:00 AM	232
11:00 AM	402
12:00 PM	510
1:00 PM	512
2:00 PM	443
3:00 PM	441
4:00 PM	581
5:00 PM	898
6:00 PM	432
7:00 PM	236
8:00 PM	140
9:00 PM	169
10:00 PM	98
11:00 PM	29
Total	7083



Volumes represent the combined totals for both directions

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City of Irvine
Redhill Avenue
B/ McGaw Avenue - Alton Parkway

File Name 270
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
4/16/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	10	215			11	184				
12:15	7	235			5	227				
12:30	7	205			6	187				
12:45	7	193	31	848	8	233	30	831	61	1679
1:00	4	210			4	205				
1:15	4	201			10	192				
1:30	8	232			8	184				
1:45	4	239	20	882	7	176	29	757	49	1639
2:00	4	255			6	167				
2:15	5	292			3	253				
2:30	3	354			8	188				
2:45	3	299	15	1200	3	193	20	801	35	2001
3:00	5	363			7	183				
3:15	2	364			21	226				
3:30	5	410			16	200				
3:45	5	356	17	1493	11	254	55	863	72	2356
4:00	10	447			18	216				
4:15	26	428			37	282				
4:30	31	472			59	226				
4:45	47	501	114	1848	36	363	150	1087	264	2935
5:00	39	503			48	282				
5:15	25	492			58	249				
5:30	51	469			90	264				
5:45	76	537	191	2001	75	204	271	999	462	3000
6:00	73	551			95	168				
6:15	67	491			97	154				
6:30	97	403			168	156				
6:45	131	310	368	1755	170	117	530	595	898	2350
7:00	154	241			206	110				
7:15	137	147			243	106				
7:30	217	111			340	68				
7:45	223	163	731	662	250	81	1039	365	1770	1027
8:00	249	106			295	77				
8:15	211	85			300	63				
8:30	231	67			268	57				
8:45	207	56	898	314	200	61	1063	258	1961	572
9:00	175	84			178	52				
9:15	141	51			157	37				
9:30	128	47			156	45				
9:45	166	46	610	228	133	35	624	169	1234	397
10:00	134	61			101	34				
10:15	124	35			137	35				
10:30	115	36			110	27				
10:45	131	15	504	147	136	12	484	108	988	255
11:00	128	23			138	10				
11:15	162	17			174	18				
11:30	200	24			195	9				
11:45	194	18	684	82	197	15	704	52	1388	134
Totals	4183	11460			4999	6885				
Combined Totals		15643				11884				
ADT										27527
AM Peak Hour	745	AM			730	AM				
Volume	914				1185					
P.H.F.	0.918				0.871					
PM Peak Hour		515	PM			445	PM			
Volume		2049				1158				
P.H.F.		0.930				0.798				
Percentage	26.7%	73.3%			42.1%	57.9%				

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24 Hour Volume Plot

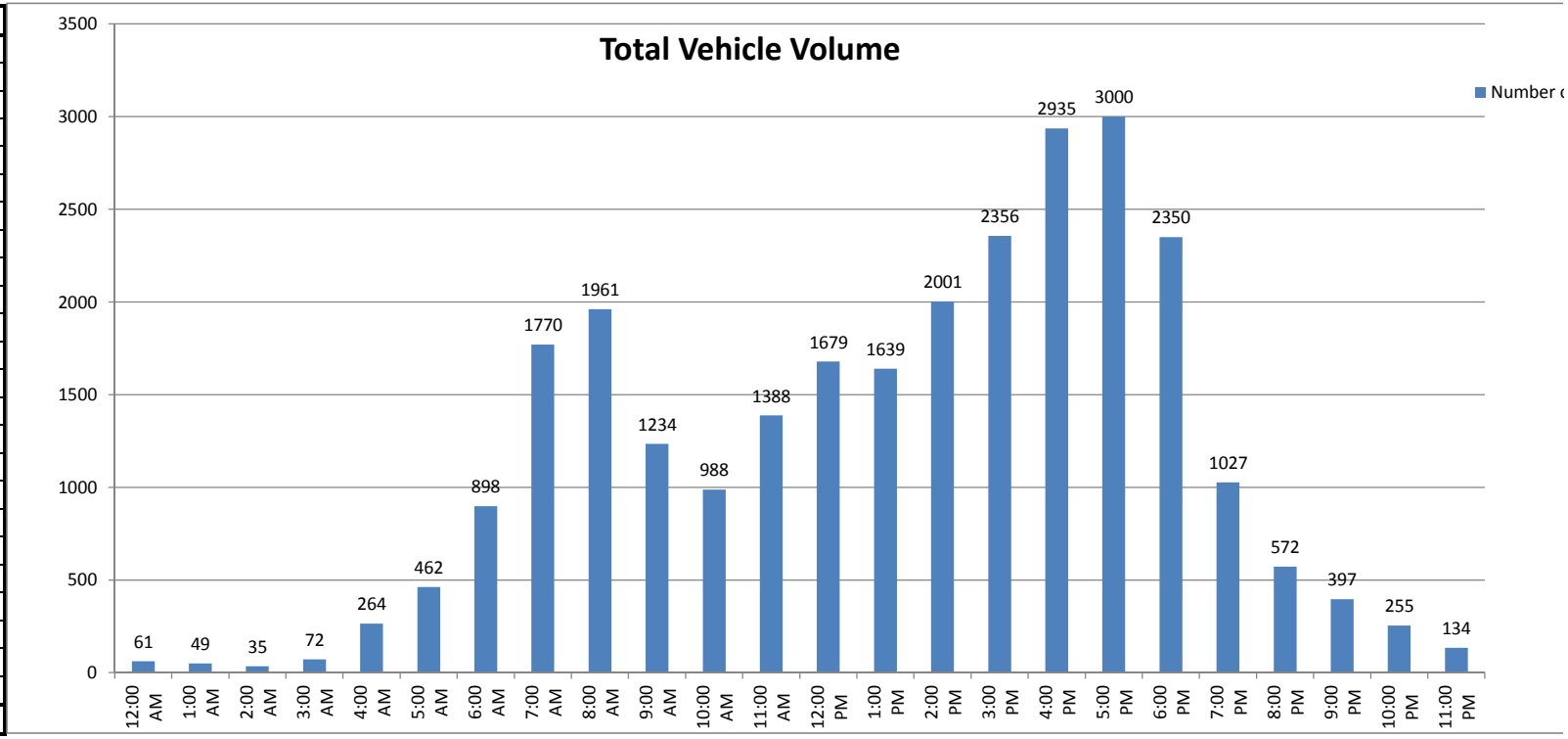
Redhill Avenue

B/ McGaw Avenue - Alton Parkway

4/16/2014

Southbound

Start Time	4/16/2014
12:00 AM	61
1:00 AM	49
2:00 AM	35
3:00 AM	72
4:00 AM	264
5:00 AM	462
6:00 AM	898
7:00 AM	1770
8:00 AM	1961
9:00 AM	1234
10:00 AM	988
11:00 AM	1388
12:00 PM	1679
1:00 PM	1639
2:00 PM	2001
3:00 PM	2356
4:00 PM	2935
5:00 PM	3000
6:00 PM	2350
7:00 PM	1027
8:00 PM	572
9:00 PM	397
10:00 PM	255
11:00 PM	134
Total	27527



Volumes represent the combined totals for both directions

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City of Irvine
Redhill Avenue
B/ MacArthur Boulevard - McGaw Avenue

File Name 269
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
4/16/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	8	245			26	254				
12:15	9	261			62	255				
12:30	7	253			43	252				
12:45	5	258	29	1017	42	251	173	1012	202	2029
1:00	7	280			18	286				
1:15	11	257			10	276				
1:30	19	248			14	295				
1:45	21	281	58	1066	7	283	49	1140	107	2206
2:00	20	320			4	292				
2:15	12	356			2	264				
2:30	15	396			7	433				
2:45	17	301	64	1373	10	308	23	1297	87	2670
3:00	18	361			8	316				
3:15	18	382			9	278				
3:30	29	424			26	417				
3:45	56	356	121	1523	10	330	53	1341	174	2864
4:00	85	487			21	427				
4:15	89	442			11	335				
4:30	106	509			28	426				
4:45	137	514	417	1952	30	389	90	1577	507	3529
5:00	61	548			51	499				
5:15	81	544			33	469				
5:30	96	533			38	348				
5:45	198	575	436	2200	82	366	204	1682	640	3882
6:00	138	596			91	299				
6:15	125	499			91	277				
6:30	153	438			119	232				
6:45	223	312	639	1845	139	191	440	999	1079	2844
7:00	258	259			169	158				
7:15	255	155			165	170				
7:30	306	103			246	143				
7:45	366	167	1185	684	329	105	909	576	2094	1260
8:00	365	131			298	102				
8:15	314	89			262	97				
8:30	324	74			309	87				
8:45	293	47	1296	341	252	86	1121	372	2417	713
9:00	239	69			226	112				
9:15	186	51			206	65				
9:30	192	46			162	55				
9:45	192	49	809	215	187	58	781	290	1590	505
10:00	184	54			154	90				
10:15	157	37			150	44				
10:30	144	34			166	63				
10:45	160	21	645	146	145	43	615	240	1260	386
11:00	164	22			191	50				
11:15	192	25			189	27				
11:30	220	22			208	38				
11:45	195	15	771	84	256	19	844	134	1615	218
Totals	6470	12446			5302	10660				
Combined Totals		18916				15962				
ADT										34878
AM Peak Hour	745	AM			745	AM				
Volume	1369				1198					
P.H.F.	0.935				0.910					
PM Peak Hour		515	PM			430	PM			
Volume		2248				1783				
P.H.F.		0.943				0.893				
Percentage	34.2%	65.8%			33.2%	66.8%				

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24 Hour Volume Plot

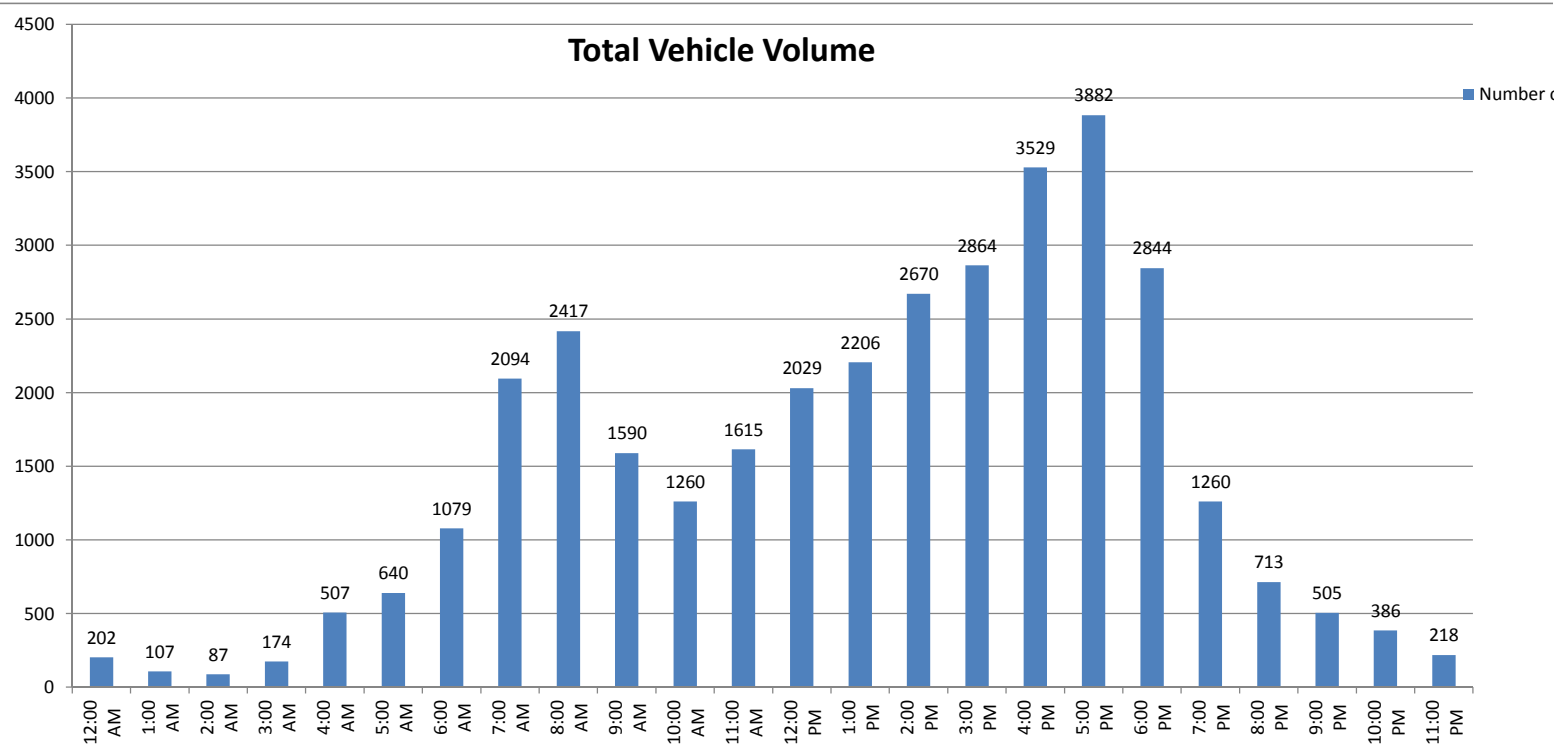
Redhill Avenue

B/ MacArthur Boulevard - McGaw Avenue

4/16/2014

Southbound

Start Time	4/16/2014
12:00 AM	202
1:00 AM	107
2:00 AM	87
3:00 AM	174
4:00 AM	507
5:00 AM	640
6:00 AM	1079
7:00 AM	2094
8:00 AM	2417
9:00 AM	1590
10:00 AM	1260
11:00 AM	1615
12:00 PM	2029
1:00 PM	2206
2:00 PM	2670
3:00 PM	2864
4:00 PM	3529
5:00 PM	3882
6:00 PM	2844
7:00 PM	1260
8:00 PM	713
9:00 PM	505
10:00 PM	386
11:00 PM	218
Total	34878



Volumes represent the combined totals for both directions

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City of Irvine
Redhill Avenue
B/ Sky Park North - MacArthur Boulevard

File Name 268
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
6/11/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	19	155			6	139				
12:15	13	153			5	141				
12:30	6	162			2	154				
12:45	7	153	45	623	4	153	17	587	62	1210
1:00	3	174			3	146				
1:15	1	164			3	137				
1:30	2	177			2	125				
1:45	0	150	6	665	2	117	10	525	16	1190
2:00	1	138			2	114				
2:15	1	139			0	110				
2:30	2	173			3	145				
2:45	3	178	7	628	1	117	6	486	13	1114
3:00	1	213			5	104				
3:15	4	187			7	137				
3:30	4	225			8	126				
3:45	4	203	13	828	16	163	36	530	49	1358
4:00	3	263			23	148				
4:15	6	248			22	145				
4:30	7	271			35	160				
4:45	13	293	29	1075	23	193	103	646	132	1721
5:00	7	346			28	237				
5:15	14	336			39	216				
5:30	17	336			37	259				
5:45	28	313	66	1331	64	214	168	926	234	2257
6:00	35	326			59	167				
6:15	45	250			53	137				
6:30	44	192			67	119				
6:45	78	157	202	925	109	97	288	520	490	1445
7:00	75	125			93	62				
7:15	86	95			111	72				
7:30	109	77			150	60				
7:45	181	78	451	375	197	49	551	243	1002	618
8:00	170	57			215	37				
8:15	129	81			207	32				
8:30	146	43			204	43				
8:45	106	51	551	232	196	36	822	148	1373	380
9:00	107	49			180	35				
9:15	93	53			124	30				
9:30	82	47			125	26				
9:45	80	38	362	187	109	25	538	116	900	303
10:00	109	38			108	19				
10:15	97	23			110	18				
10:30	92	20			96	10				
10:45	92	16	390	97	91	13	405	60	795	157
11:00	112	20			108	9				
11:15	103	19			100	9				
11:30	128	23			132	6				
11:45	107	30	450	92	148	2	488	26	938	118
Totals	2572	7058			3432	4813				
Combined Totals		9630				8245				
ADT										17875
AM Peak Hour	745	AM			745	AM				
Volume	626				823					
P.H.F.	0.865				0.957					
PM Peak Hour		500	PM			500	PM			
Volume		1331				926				
P.H.F.		0.962				0.894				
Percentage	26.7%	73.3%			41.6%	58.4%				

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Corona, CA 92878

24 Hour Volume Plot

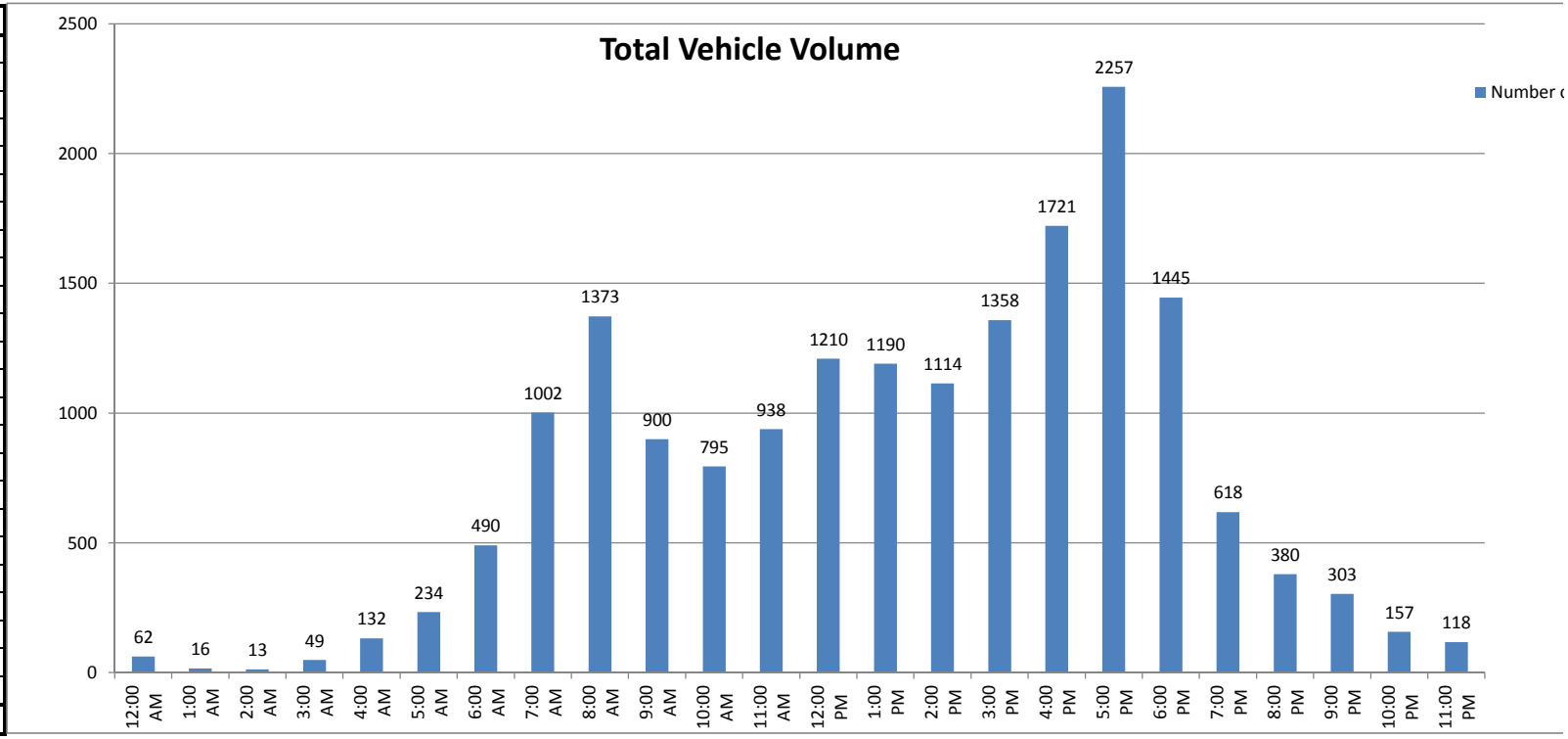
Redhill Avenue

B/ Sky Park North - MacArthur Boulevard

6/11/2014

Southbound

Start Time	6/11/2014
12:00 AM	62
1:00 AM	16
2:00 AM	13
3:00 AM	49
4:00 AM	132
5:00 AM	234
6:00 AM	490
7:00 AM	1002
8:00 AM	1373
9:00 AM	900
10:00 AM	795
11:00 AM	938
12:00 PM	1210
1:00 PM	1190
2:00 PM	1114
3:00 PM	1358
4:00 PM	1721
5:00 PM	2257
6:00 PM	1445
7:00 PM	618
8:00 PM	380
9:00 PM	303
10:00 PM	157
11:00 PM	118
Total	17875



Volumes represent the combined totals for both directions

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City of Irvine
Von Karman Avenue
B/ McGaw Avenue - Alton Parkway

File Name 311
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/6/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	8	249			3	129				
12:15	5	211			4	141				
12:30	10	205			1	205				
12:45	2	178	25	843	1	187	9	662	34	1505
1:00	8	214			1	235				
1:15	5	190			0	192				
1:30	8	187			0	203				
1:45	1	173	22	764	2	171	3	801	25	1565
2:00	7	183			2	125				
2:15	1	163			3	138				
2:30	3	223			1	136				
2:45	3	181	14	750	3	118	9	517	23	1267
3:00	4	218			1	97				
3:15	3	201			3	108				
3:30	4	258			4	102				
3:45	4	247	15	924	5	113	13	420	28	1344
4:00	3	318			5	96				
4:15	4	324			5	107				
4:30	8	381			8	138				
4:45	12	388	27	1411	34	110	52	451	79	1862
5:00	11	407			17	125				
5:15	9	392			28	137				
5:30	17	373			36	157				
5:45	44	417	81	1589	70	122	151	541	232	2130
6:00	46	399			55	109				
6:15	43	362			63	89				
6:30	45	260			105	87				
6:45	59	242	193	1263	162	65	385	350	578	1613
7:00	48	180			172	82				
7:15	65	151			253	66				
7:30	65	106			306	47				
7:45	96	87	274	524	390	37	1121	232	1395	756
8:00	82	86			449	33				
8:15	105	81			415	41				
8:30	90	74			395	28				
8:45	72	70	349	311	384	39	1643	141	1992	452
9:00	91	65			292	29				
9:15	77	50			172	29				
9:30	82	42			162	20				
9:45	85	70	335	227	136	16	762	94	1097	321
10:00	73	59			117	20				
10:15	84	32			77	12				
10:30	90	34			82	13				
10:45	95	20	342	145	64	14	340	59	682	204
11:00	180	23			102	6				
11:15	141	11			73	4				
11:30	237	19			124	7				
11:45	203	14	761	67	133	5	432	22	1193	89
Totals	2438	8818			4920	4290				
Combined Totals		11256				9210				
ADT										20466
AM Peak Hour	1100	AM			745	AM				
Volume	761				1649					
P.H.F.	0.803				0.918					
PM Peak Hour		500	PM			1230	PM			
Volume		1589				819				
P.H.F.		0.953				0.871				
Percentage	21.7%	78.3%			53.4%	46.6%				

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Counts Unlimited, Inc.
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Corona, CA 92878

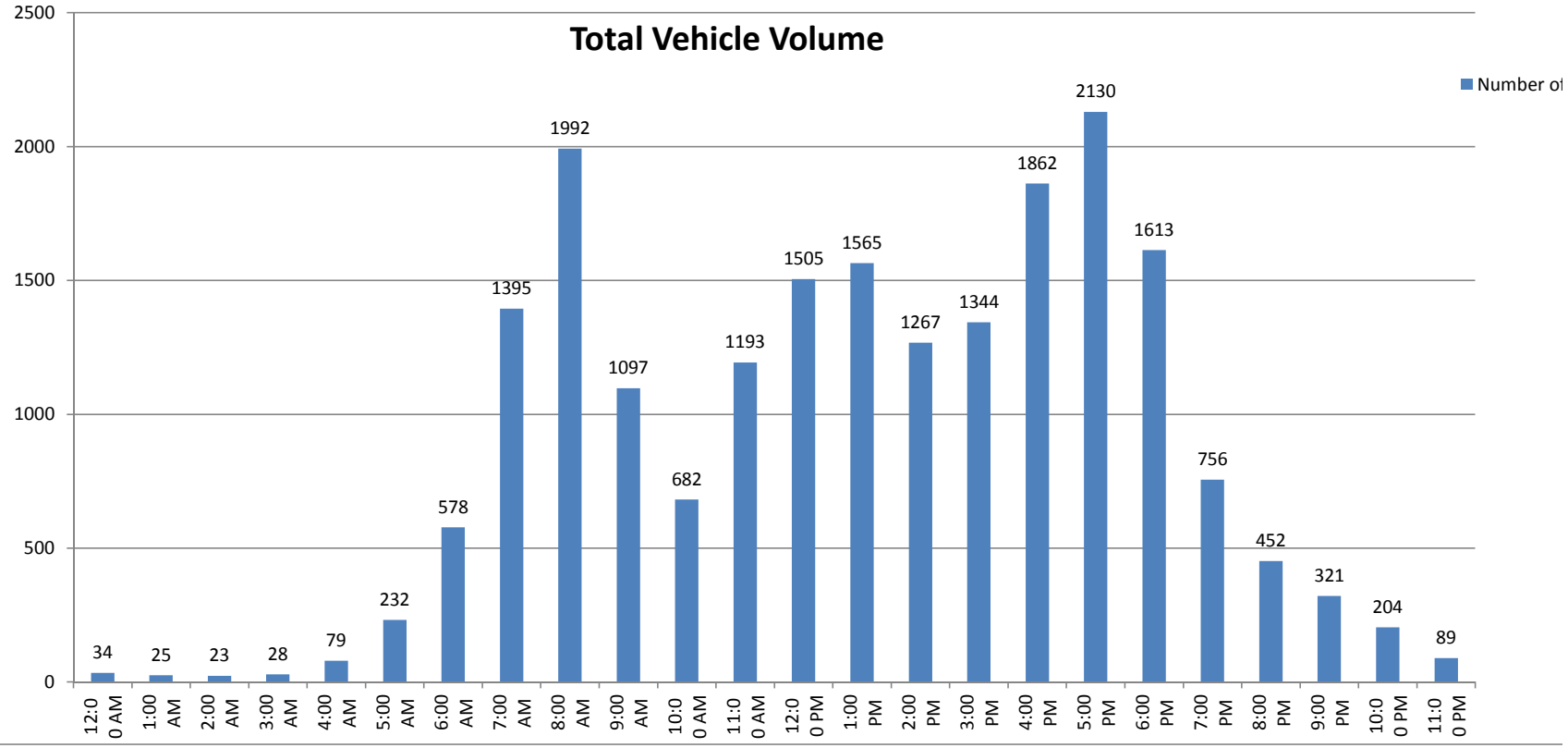
24 Hour Volume Plot

Von Karman Avenue
B/ McGaw Avenue - Alton Parkway

3/6/2014

Southbound

Start Time	3/6/2014
12:00 AM	34
1:00 AM	25
2:00 AM	23
3:00 AM	28
4:00 AM	79
5:00 AM	232
6:00 AM	578
7:00 AM	1395
8:00 AM	1992
9:00 AM	1097
10:00 AM	682
11:00 AM	1193
12:00 PM	1505
1:00 PM	1565
2:00 PM	1267
3:00 PM	1344
4:00 PM	1862
5:00 PM	2130
6:00 PM	1613
7:00 PM	756
8:00 PM	452
9:00 PM	321
10:00 PM	204
11:00 PM	89
Total	20466



Volumes represent the combined totals for both directions

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City of Irvine
Von Karman Avenue
B/ Main Street - McGaw Avenue

File Name 310
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/6/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	6	233			6	165				
12:15	1	211			6	174				
12:30	8	209			2	219				
12:45	2	203	17	856	2	217	16	775	33	1631
1:00	6	217			1	254				
1:15	4	206			0	215				
1:30	5	183			0	222				
1:45	1	190	16	796	4	198	5	889	21	1685
2:00	2	164			1	147				
2:15	2	165			1	173				
2:30	3	210			1	177				
2:45	8	163	15	702	3	165	6	662	21	1364
3:00	2	199			5	148				
3:15	7	189			6	138				
3:30	3	235			3	137				
3:45	8	225	20	848	5	160	19	583	39	1431
4:00	5	332			3	164				
4:15	1	294			2	148				
4:30	8	370			7	189				
4:45	17	367	31	1363	25	162	37	663	68	2026
5:00	11	446			23	185				
5:15	13	442			27	185				
5:30	23	416			33	191				
5:45	54	451	101	1755	57	163	140	724	241	2479
6:00	43	388			60	162				
6:15	55	331			70	137				
6:30	60	281			96	103				
6:45	95	246	253	1246	147	87	373	489	626	1735
7:00	58	180			168	98				
7:15	90	151			232	89				
7:30	112	83			327	69				
7:45	118	89	378	503	364	56	1091	312	1469	815
8:00	120	81			464	52				
8:15	131	73			424	56				
8:30	115	64			411	36				
8:45	112	65	478	283	384	57	1683	201	2161	484
9:00	120	67			295	43				
9:15	104	40			193	43				
9:30	102	36			167	31				
9:45	103	65	429	208	160	27	815	144	1244	352
10:00	66	53			126	30				
10:15	101	40			100	33				
10:30	89	29			112	22				
10:45	115	17	371	139	93	27	431	112	802	251
11:00	154	23			126	12				
11:15	142	10			114	9				
11:30	234	16			158	10				
11:45	217	9	747	58	204	10	602	41	1349	99
Totals	2856	8757			5218	5595				
Combined Totals		11613				10813				
ADT										22426
AM Peak Hour	1100	AM			800	AM				
Volume	747				1683					
P.H.F.	0.798				0.907					
PM Peak Hour		500	PM			1245	PM			
Volume		1755				908				
P.H.F.		0.973				0.894				
Percentage	24.6%	75.4%			48.3%	51.7%				

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Counts Unlimited, Inc.
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Corona, CA 92878

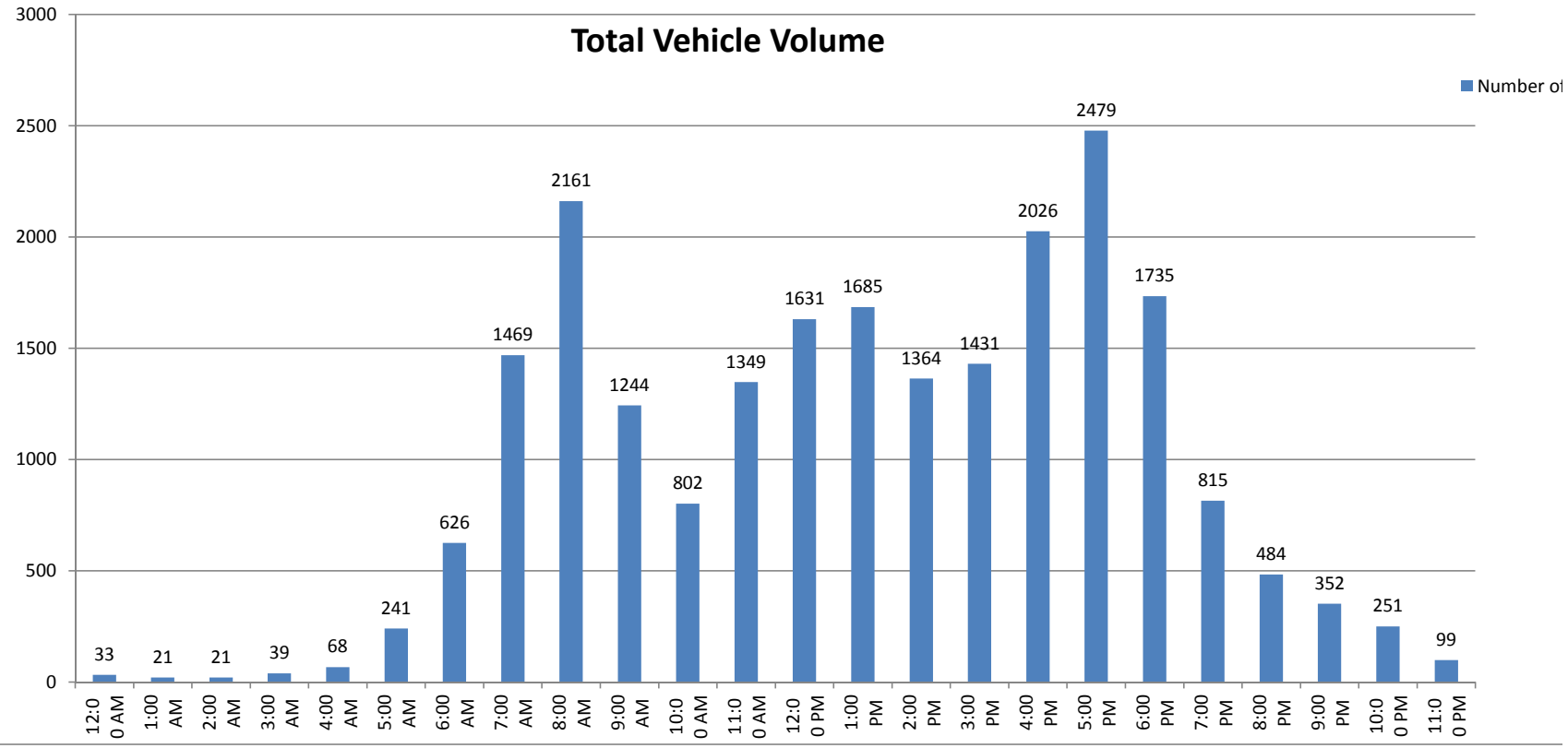
24 Hour Volume Plot

Von Karman Avenue
B/ Main Street - McGaw Avenue

3/6/2014

Southbound

Start Time	3/6/2014
12:00 AM	33
1:00 AM	21
2:00 AM	21
3:00 AM	39
4:00 AM	68
5:00 AM	241
6:00 AM	626
7:00 AM	1469
8:00 AM	2161
9:00 AM	1244
10:00 AM	802
11:00 AM	1349
12:00 PM	1631
1:00 PM	1685
2:00 PM	1364
3:00 PM	1431
4:00 PM	2026
5:00 PM	2479
6:00 PM	1735
7:00 PM	815
8:00 PM	484
9:00 PM	352
10:00 PM	251
11:00 PM	99
Total	22426



Volumes represent the combined totals for both directions

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Counts Unlimited, Inc.
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City of Irvine
Jamboree Road
B/ McGaw Avenue - Alton Parkway

File Name 190
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
4/30/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	45	442			37	375				
12:15	36	432			33	406				
12:30	18	368			36	431				
12:45	18	390	117	1632	39	459	145	1671	262	3303
1:00	23	379			12	432				
1:15	20	403			14	394				
1:30	16	384			10	466				
1:45	14	399	73	1565	6	387	42	1679	115	3244
2:00	13	425			15	378				
2:15	12	445			9	387				
2:30	8	447			10	425				
2:45	11	509	44	1826	8	394	42	1584	86	3410
3:00	8	519			11	342				
3:15	10	588			11	340				
3:30	14	571			15	323				
3:45	17	575	49	2253	18	358	55	1363	104	3616
4:00	15	651			15	345				
4:15	20	689			19	307				
4:30	21	538			32	379				
4:45	47	644	103	2522	69	363	135	1394	238	3916
5:00	60	730			66	408				
5:15	49	645			105	425				
5:30	85	684			140	364				
5:45	134	684	328	2743	133	359	444	1556	772	4299
6:00	112	671			212	395				
6:15	155	679			243	367				
6:30	177	594			344	342				
6:45	204	515	648	2459	493	331	1292	1435	1940	3894
7:00	242	397			457	329				
7:15	223	460			624	273				
7:30	240	312			652	299				
7:45	297	347	1002	1516	745	242	2478	1143	3480	2659
8:00	289	269			730	265				
8:15	302	273			764	209				
8:30	292	240			816	206				
8:45	287	229	1170	1011	782	245	3092	925	4262	1936
9:00	305	250			776	223				
9:15	271	234			649	217				
9:30	274	216			541	184				
9:45	271	196	1121	896	507	142	2473	766	3594	1662
10:00	302	153			482	162				
10:15	246	92			404	138				
10:30	294	118			399	130				
10:45	263	93	1105	456	361	101	1646	531	2751	987
11:00	330	68			384	76				
11:15	333	58			407	84				
11:30	386	38			372	60				
11:45	438	41	1487	205	347	39	1510	259	2997	464
Totals	7247	19084			13354	14306				
Combined Totals		26331				27660				
ADT										53991
AM Peak Hour	1100	AM			815	AM				
Volume	1487				3138					
P.H.F.	0.849				0.961					
PM Peak Hour		500	PM			2445	PM			
Volume		2743				1751				
P.H.F.		0.939				0.939				
Percentage	27.5%	72.5%			48.3%	51.7%				

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Counts Unlimited, Inc.
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Corona, CA 92878

24 Hour Volume Plot

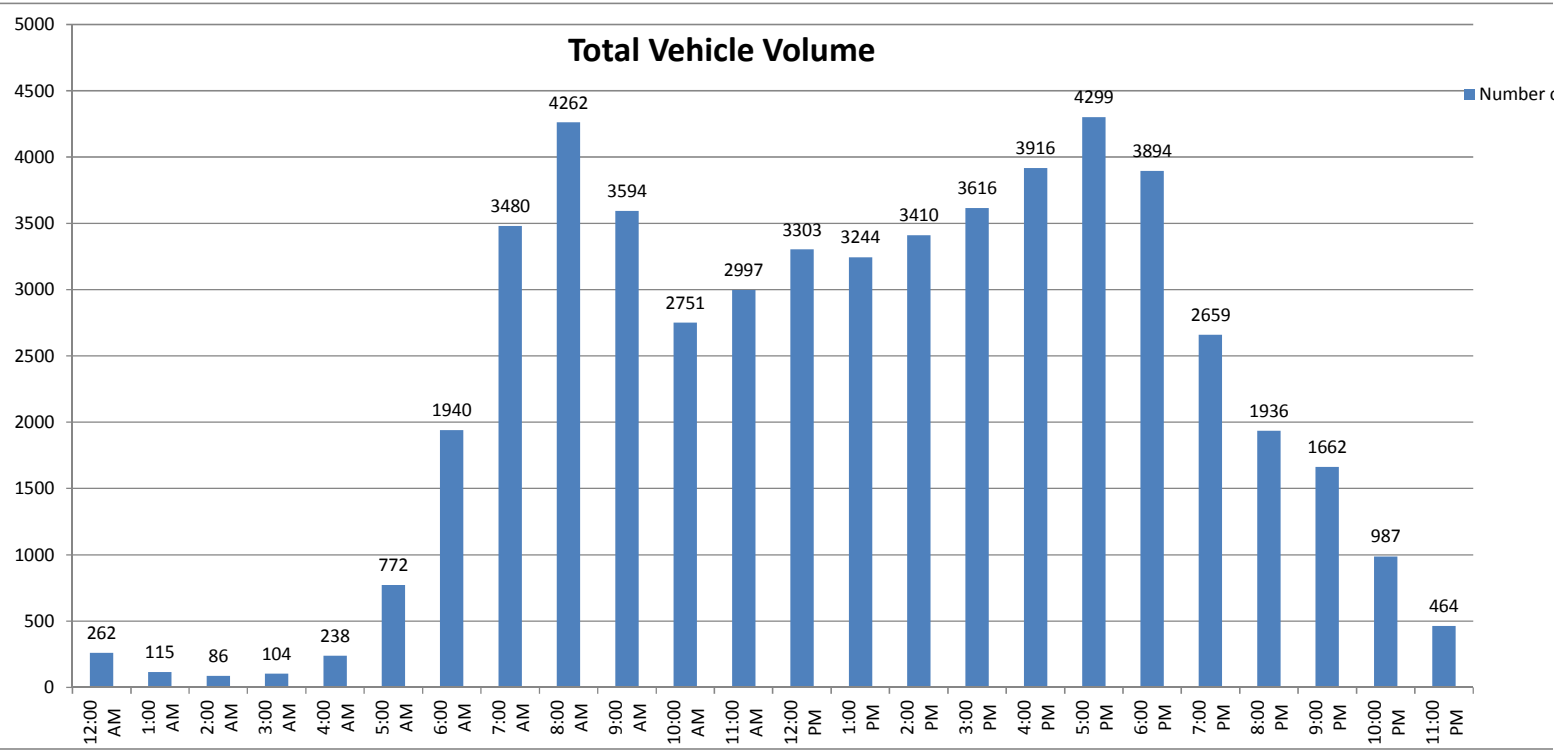
Jamboree Road

B/ McGaw Avenue - Alton Parkway

4/30/2014

Southbound

Start Time	4/30/2014
12:00 AM	262
1:00 AM	115
2:00 AM	86
3:00 AM	104
4:00 AM	238
5:00 AM	772
6:00 AM	1940
7:00 AM	3480
8:00 AM	4262
9:00 AM	3594
10:00 AM	2751
11:00 AM	2997
12:00 PM	3303
1:00 PM	3244
2:00 PM	3410
3:00 PM	3616
4:00 PM	3916
5:00 PM	4299
6:00 PM	3894
7:00 PM	2659
8:00 PM	1936
9:00 PM	1662
10:00 PM	987
11:00 PM	464
Total	53991



Volumes represent the combined totals for both directions

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Counts Unlimited, Inc.
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City of Irvine
Jamboree Road
B/ Main Street - Kelvin Avenue

File Name 188
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
4/30/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	48	471			52	400				
12:15	36	431			33	427				
12:30	18	390			37	427				
12:45	19	397	121	1689	40	507	162	1761	283	3450
1:00	25	441			16	439				
1:15	21	452			21	422				
1:30	21	428			11	466				
1:45	19	426	86	1747	13	379	61	1706	147	3453
2:00	13	429			22	426				
2:15	12	498			9	439				
2:30	8	425			14	458				
2:45	8	578	41	1930	9	439	54	1762	95	3692
3:00	4	530			14	413				
3:15	10	601			7	361				
3:30	12	562			9	429				
3:45	30	577	56	2270	19	365	49	1568	105	3838
4:00	22	647			15	419				
4:15	29	615			16	355				
4:30	38	597			30	455				
4:45	69	676	158	2535	66	405	127	1634	285	4169
5:00	82	666			48	503				
5:15	74	785			86	476				
5:30	125	667			122	450				
5:45	204	648	485	2766	138	389	394	1818	879	4584
6:00	141	644			192	417				
6:15	200	686			245	389				
6:30	212	642			309	325				
6:45	289	545	842	2517	469	336	1215	1467	2057	3984
7:00	297	467			470	338				
7:15	253	443			546	280				
7:30	294	364			715	266				
7:45	348	354	1192	1628	633	279	2364	1163	3556	2791
8:00	346	297			762	273				
8:15	347	308			769	247				
8:30	302	267			732	220				
8:45	363	206	1358	1078	791	287	3054	1027	4412	2105
9:00	353	251			764	268				
9:15	308	248			628	238				
9:30	324	203			498	222				
9:45	320	205	1305	907	595	150	2485	878	3790	1785
10:00	353	154			427	183				
10:15	280	103			411	148				
10:30	315	120			420	159				
10:45	301	98	1249	475	366	116	1624	606	2873	1081
11:00	318	75			418	85				
11:15	367	60			391	109				
11:30	402	50			403	68				
11:45	453	43	1540	228	374	44	1586	306	3126	534
Totals	8433	19770			13175	15696				
Combined Totals		28203				28871				
ADT										57074
AM Peak Hour	1100	AM			815	AM				
Volume	1540				3056					
P.H.F.	0.850				0.966					
PM Peak Hour		445	PM			430	PM			
Volume		2794				1839				
P.H.F.		0.890				0.914				
Percentage	29.9%	70.1%			45.6%	54.4%				

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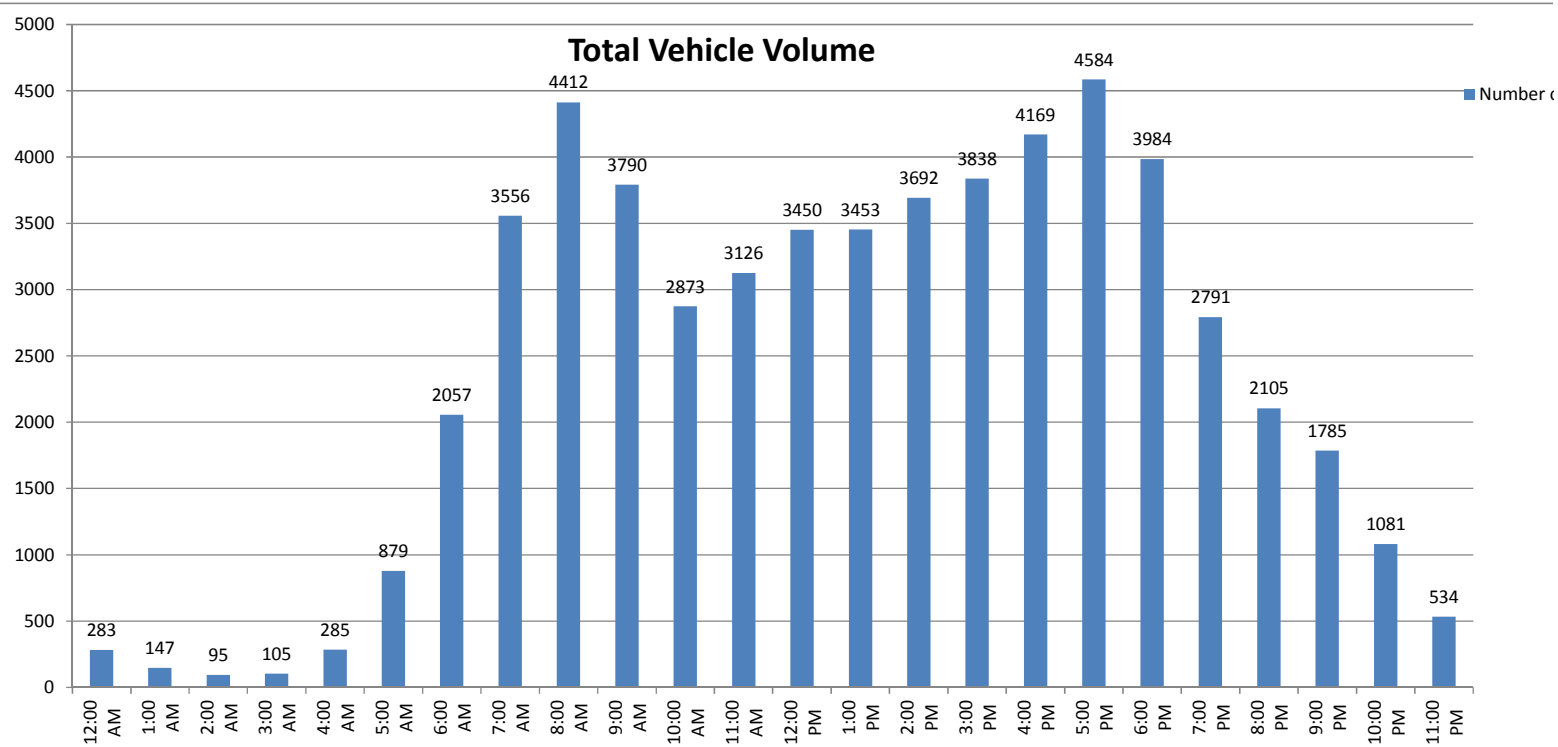
Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

Jamboree Road
B/ Main Street - Kelvin Avenue
4/30/2014

Southbound

Start Time	4/30/2014
12:00 AM	283
1:00 AM	147
2:00 AM	95
3:00 AM	105
4:00 AM	285
5:00 AM	879
6:00 AM	2057
7:00 AM	3556
8:00 AM	4412
9:00 AM	3790
10:00 AM	2873
11:00 AM	3126
12:00 PM	3450
1:00 PM	3453
2:00 PM	3692
3:00 PM	3838
4:00 PM	4169
5:00 PM	4584
6:00 PM	3984
7:00 PM	2791
8:00 PM	2105
9:00 PM	1785
10:00 PM	1081
11:00 PM	534
Total	57074



Volumes represent the combined totals for both directions

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Harvard Avenue
B/ San Carlo - San Marino

File Name 126
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
2/20/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	10	185			10	169				
12:15	17	150			11	177				
12:30	19	154			14	166				
12:45	7	161	53	650	7	194	42	706	95	1356
1:00	10	149			10	223				
1:15	19	134			7	183				
1:30	6	129			4	194				
1:45	8	108	43	520	2	153	23	753	66	1273
2:00	4	157			3	133				
2:15	10	155			3	149				
2:30	1	187			2	141				
2:45	4	159	19	658	4	152	12	575	31	1233
3:00	6	170			2	143				
3:15	3	229			1	142				
3:30	3	209			4	156				
3:45	2	222	14	830	1	146	8	587	22	1417
4:00	1	247			1	153				
4:15	0	235			3	142				
4:30	1	274			7	141				
4:45	8	278	10	1034	12	152	23	588	33	1622
5:00	7	367			16	178				
5:15	7	438			14	163				
5:30	10	409			33	200				
5:45	14	436	38	1650	38	199	101	740	139	2390
6:00	13	366			44	177				
6:15	35	320			52	191				
6:30	33	319			52	176				
6:45	50	269	131	1274	107	145	255	689	386	1963
7:00	56	202			121	107				
7:15	71	191			161	128				
7:30	86	130			258	102				
7:45	121	126	334	649	363	108	903	445	1237	1094
8:00	124	147			356	104				
8:15	153	147			375	91				
8:30	137	99			345	95				
8:45	133	97	547	490	340	87	1416	377	1963	867
9:00	91	109			284	91				
9:15	94	96			188	72				
9:30	93	74			179	86				
9:45	95	82	373	361	166	53	817	302	1190	663
10:00	97	70			123	72				
10:15	77	73			124	58				
10:30	106	65			133	46				
10:45	90	44	370	252	105	34	485	210	855	462
11:00	103	44			107	36				
11:15	108	40			129	36				
11:30	141	30			132	17				
11:45	186	31	538	145	129	20	497	109	1035	254
Totals	2470	8513			4582	6081				
Combined Totals		10983				10663				
ADT										21646
AM Peak Hour	800	AM			745	AM				
Volume	547				1439					
P.H.F.	0.894				0.959					
PM Peak Hour		500	PM			2445	PM			
Volume		1650				794				
P.H.F.		0.942				0.890				
Percentage	22.5%	77.5%			43.0%	57.0%				

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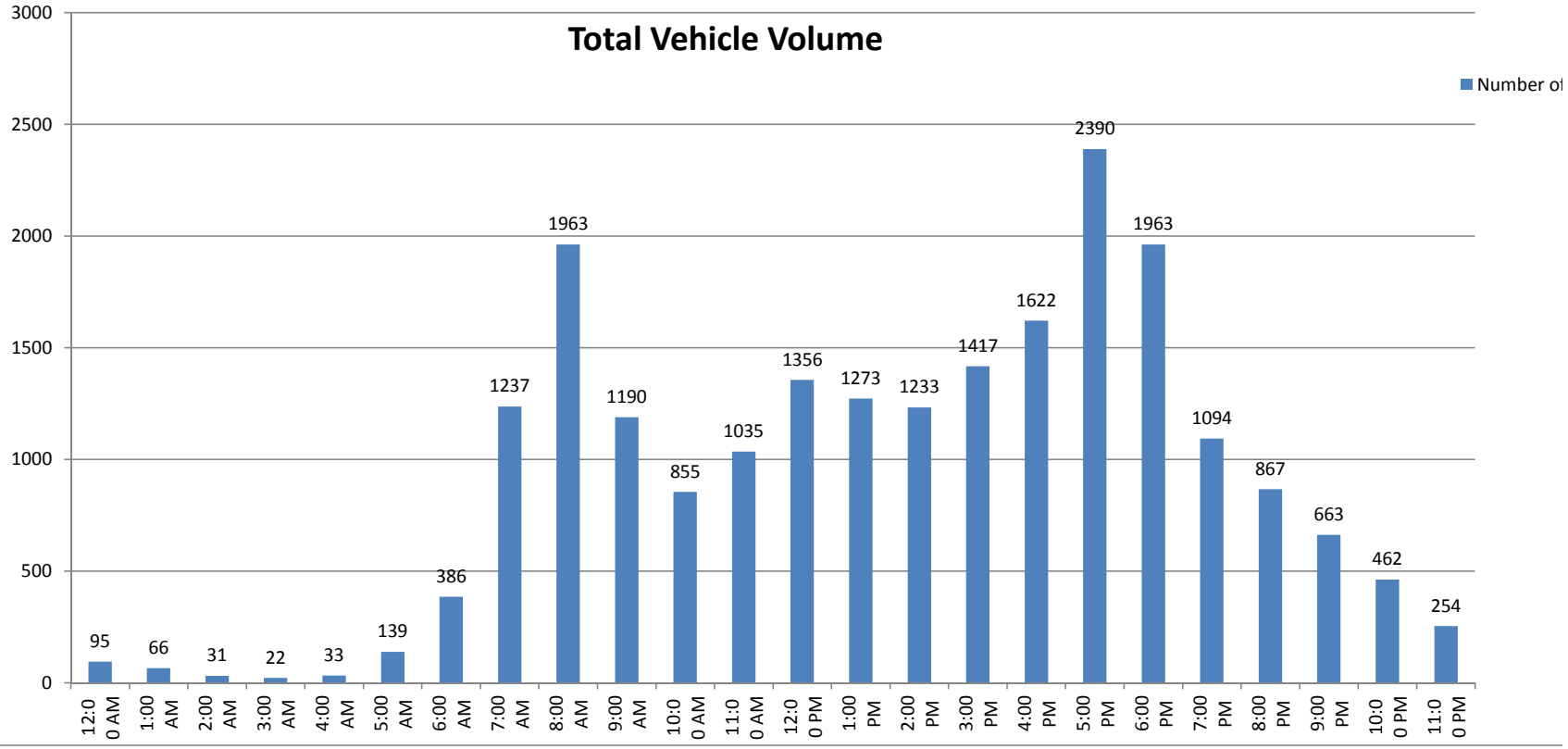
24 Hour Volume Plot

Harvard Avenue
B/ San Carlo - San Marino
2/20/2014

Southbound

Start Time	2/20/2014
12:00 AM	95
1:00 AM	66
2:00 AM	31
3:00 AM	22
4:00 AM	33
5:00 AM	139
6:00 AM	386
7:00 AM	1237
8:00 AM	1963
9:00 AM	1190
10:00 AM	855
11:00 AM	1035
12:00 PM	1356
1:00 PM	1273
2:00 PM	1233
3:00 PM	1417
4:00 PM	1622
5:00 PM	2390
6:00 PM	1963
7:00 PM	1094
8:00 PM	867
9:00 PM	663
10:00 PM	462
11:00 PM	254
Total	21646



Volumes represent the combined totals for both directions

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of Irvine
Culver Drive
B/ Main Street - Alton Parkway

File Name 098
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/12/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	47	337			32	327				
12:15	31	373			41	307				
12:30	42	314			30	349				
12:45	25	366	145	1390	34	381	137	1364	282	2754
1:00	18	312			17	404				
1:15	9	359			12	341				
1:30	17	346			15	367				
1:45	14	320	58	1337	15	348	59	1460	117	2797
2:00	11	344			15	331				
2:15	12	377			6	323				
2:30	6	315			6	343				
2:45	7	395	36	1431	10	359	37	1356	73	2787
3:00	11	398			6	318				
3:15	13	445			6	312				
3:30	7	430			11	322				
3:45	11	438	42	1711	6	351	29	1303	71	3014
4:00	4	439			9	339				
4:15	10	463			15	338				
4:30	17	522			24	320				
4:45	23	523	54	1947	25	344	73	1341	127	3288
5:00	20	542			31	352				
5:15	34	579			58	395				
5:30	48	599			85	409				
5:45	68	580	170	2300	79	369	253	1525	423	3825
6:00	63	467			73	355				
6:15	79	456			122	340				
6:30	96	422			159	335				
6:45	135	457	373	1802	237	331	591	1361	964	3163
7:00	125	550			277	343				
7:15	200	408			347	359				
7:30	274	366			479	315				
7:45	276	293	875	1617	585	293	1688	1310	2563	2927
8:00	309	313			544	298				
8:15	334	278			559	282				
8:30	317	268			518	264				
8:45	301	192	1261	1051	543	237	2164	1081	3425	2132
9:00	303	242			420	265				
9:15	315	222			354	231				
9:30	291	192			332	193				
9:45	250	155	1159	811	354	174	1460	863	2619	1674
10:00	252	168			297	178				
10:15	243	141			285	144				
10:30	259	115			330	97				
10:45	265	75	1019	499	292	109	1204	528	2223	1027
11:00	272	61			303	96				
11:15	289	54			304	53				
11:30	307	59			301	40				
11:45	385	43	1253	217	335	55	1243	244	2496	461
Totals	6445	16113			8938	13736				
Combined Totals		22558				22674				
ADT										45232
AM Peak Hour	800	AM			745	AM				
Volume	1261				2206					
P.H.F.	0.944				0.943					
PM Peak Hour		500	PM			515	PM			
Volume		2300				1528				
P.H.F.		0.960				0.934				
Percentage	28.6%	71.4%			39.4%	60.6%				

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

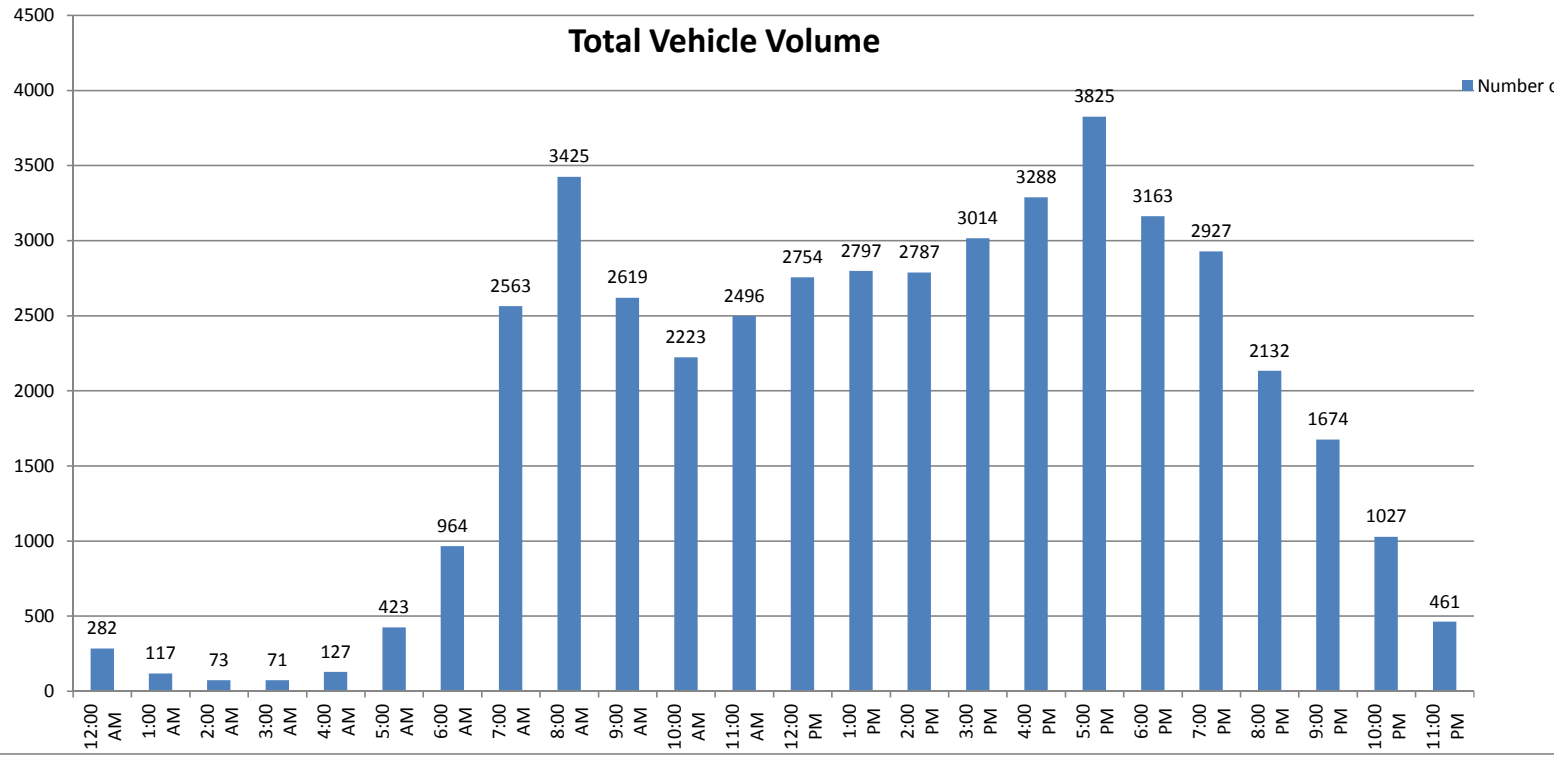
24 Hour Volume Plot

Culver Drive
B/ Main Street - Alton Parkway

3/12/2014

Southbound

Start Time	3/12/2014
12:00 AM	282
1:00 AM	117
2:00 AM	73
3:00 AM	71
4:00 AM	127
5:00 AM	423
6:00 AM	964
7:00 AM	2563
8:00 AM	3425
9:00 AM	2619
10:00 AM	2223
11:00 AM	2496
12:00 PM	2754
1:00 PM	2797
2:00 PM	2787
3:00 PM	3014
4:00 PM	3288
5:00 PM	3825
6:00 PM	3163
7:00 PM	2927
8:00 PM	2132
9:00 PM	1674
10:00 PM	1027
11:00 PM	461
Total	45232



Volumes represent the combined totals for both directions

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City of Irvine
MacArthur Boulevard
B/ Main Street - Redhill Avenue

File Name 230
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
3/6/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	6	217			26	223				
12:15	8	175			15	208				
12:30	5	219			21	195				
12:45	4	202	23	813	16	218	78	844	101	1657
1:00	7	203			22	229				
1:15	4	210			11	281				
1:30	4	191			11	256				
1:45	9	194	24	798	14	321	58	1087	82	1885
2:00	2	201			9	228				
2:15	2	193			15	272				
2:30	2	232			18	321				
2:45	7	178	13	804	18	290	60	1111	73	1915
3:00	6	190			9	371				
3:15	7	175			7	324				
3:30	11	182			11	390				
3:45	10	187	34	734	8	388	35	1473	69	2207
4:00	12	207			12	411				
4:15	19	169			15	437				
4:30	42	216			12	362				
4:45	55	185	128	777	36	380	75	1590	203	2367
5:00	43	246			25	422				
5:15	58	228			28	428				
5:30	59	276			47	428				
5:45	94	261	254	1011	56	393	156	1671	410	2682
6:00	96	188			70	350				
6:15	124	158			64	368				
6:30	124	157			98	305				
6:45	169	137	513	640	115	293	347	1316	860	1956
7:00	188	100			148	245				
7:15	228	135			166	170				
7:30	207	115			190	118				
7:45	243	83	866	433	207	105	711	638	1577	1071
8:00	280	61			240	96				
8:15	279	66			208	94				
8:30	244	48			194	99				
8:45	263	61	1066	236	227	85	869	374	1935	610
9:00	201	65			224	80				
9:15	171	57			177	78				
9:30	143	60			150	71				
9:45	165	41	680	223	155	81	706	310	1386	533
10:00	155	36			151	64				
10:15	144	21			146	68				
10:30	163	27			148	54				
10:45	204	16	666	100	189	42	634	228	1300	328
11:00	214	22			174	41				
11:15	230	19			174	36				
11:30	228	16			179	48				
11:45	181	15	853	72	215	19	742	144	1595	216
Totals	5120	6641			4471	10786				
Combined Totals		11761				15257				
ADT										27018
AM Peak Hour	800	AM			800	AM				
Volume	1066				869					
P.H.F.	0.952				0.905					
PM Peak Hour		500	PM			500	PM			
Volume		1011				1671				
P.H.F.		0.916				0.976				
Percentage	43.5%	56.5%			29.3%	70.7%				

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Counts Unlimited, Inc.
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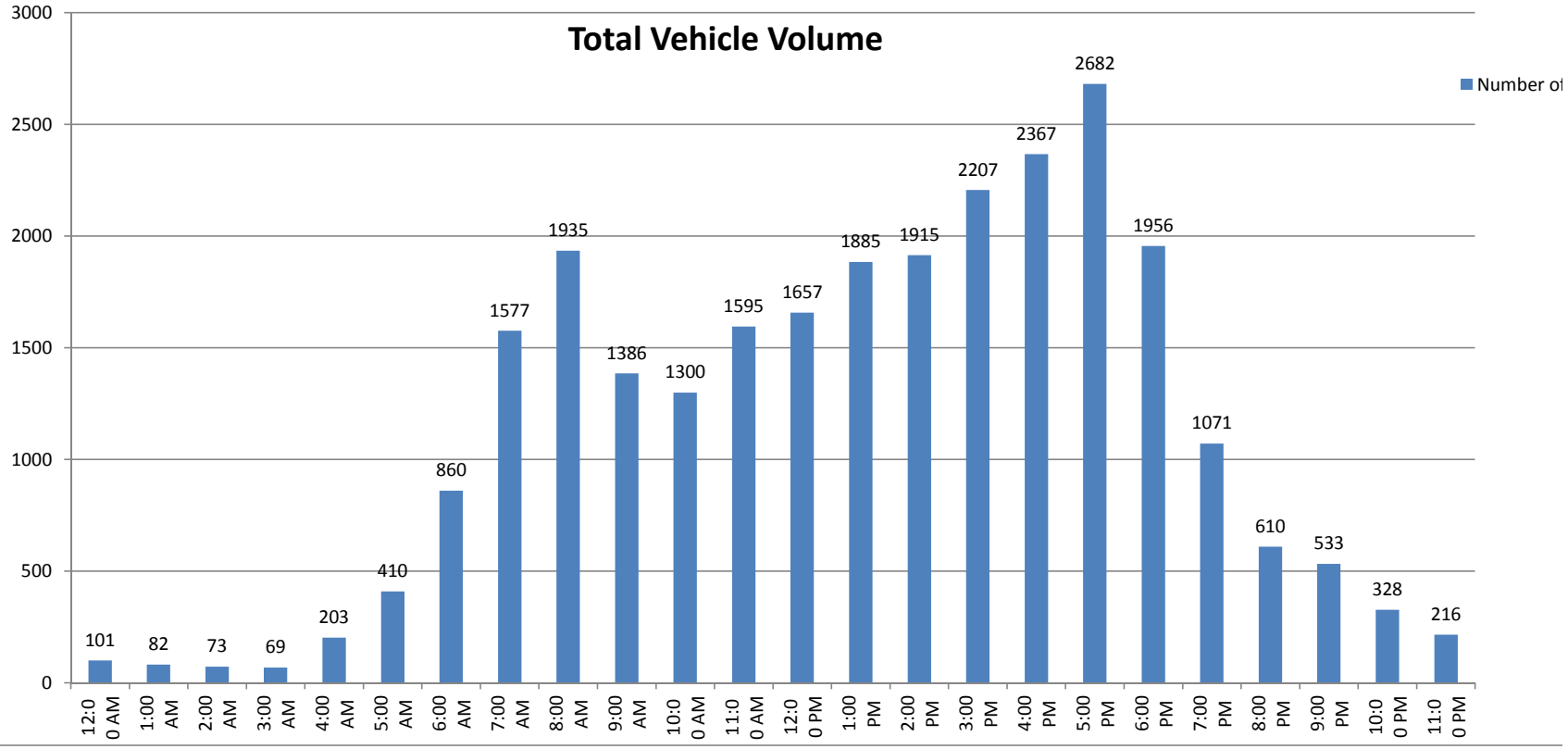
24 Hour Volume Plot

MacArthur Boulevard
B/ Main Street - Redhill Avenue

3/6/2014

Southbound

Start Time	3/6/2014
12:00 AM	101
1:00 AM	82
2:00 AM	73
3:00 AM	69
4:00 AM	203
5:00 AM	410
6:00 AM	860
7:00 AM	1577
8:00 AM	1935
9:00 AM	1386
10:00 AM	1300
11:00 AM	1595
12:00 PM	1657
1:00 PM	1885
2:00 PM	1915
3:00 PM	2207
4:00 PM	2367
5:00 PM	2682
6:00 PM	1956
7:00 PM	1071
8:00 PM	610
9:00 PM	533
10:00 PM	328
11:00 PM	216
Total	27018



Volumes represent the combined totals for both directions

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City of Irvine
Main Street
B/ Redhill Avenue - MacArthur Boulevard

File Name 233
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/27/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	17	242			21	216				
12:15	14	249			11	207				
12:30	13	230			16	228				
12:45	7	244	51	965	12	221	60	872	111	1837
1:00	5	225			13	198				
1:15	2	230			6	239				
1:30	7	229			9	204				
1:45	8	226	22	910	7	225	35	866	57	1776
2:00	5	185			9	186				
2:15	4	237			14	204				
2:30	5	228			21	238				
2:45	3	195	17	845	8	230	52	858	69	1703
3:00	6	220			8	228				
3:15	5	179			2	192				
3:30	6	205			8	305				
3:45	16	215	33	819	9	268	27	993	60	1812
4:00	14	236			9	341				
4:15	23	268			5	324				
4:30	40	280			11	404				
4:45	44	267	121	1051	16	359	41	1428	162	2479
5:00	36	322			18	461				
5:15	57	327			25	422				
5:30	98	333			33	472				
5:45	133	348	324	1330	51	370	127	1725	451	3055
6:00	87	267			51	319				
6:15	103	218			64	297				
6:30	171	176			76	218				
6:45	246	155	607	816	109	208	300	1042	907	1858
7:00	224	136			120	144				
7:15	271	116			151	109				
7:30	368	89			178	100				
7:45	424	64	1287	405	200	90	649	443	1936	848
8:00	421	92			207	81				
8:15	431	66			221	65				
8:30	373	73			209	65				
8:45	327	65	1552	296	199	47	836	258	2388	554
9:00	260	65			178	63				
9:15	192	74			151	66				
9:30	174	66			119	52				
9:45	174	58	800	263	156	48	604	229	1404	492
10:00	167	60			132	45				
10:15	166	67			136	38				
10:30	169	47			126	37				
10:45	153	41	655	215	135	20	529	140	1184	355
11:00	185	32			145	34				
11:15	200	25			179	35				
11:30	198	19			165	27				
11:45	232	18	815	94	190	14	679	110	1494	204
Totals	6284	8009			3939	8964				
Combined Totals		14293				12903				
ADT										27196
AM Peak Hour	745	AM			745	AM				
Volume	1649				837					
P.H.F.	0.956				0.947					
PM Peak Hour		500	PM			500	PM			
Volume		1330				1725				
P.H.F.		0.955				0.914				
Percentage	44.0%	56.0%			30.5%	69.5%				

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24 Hour Volume Plot

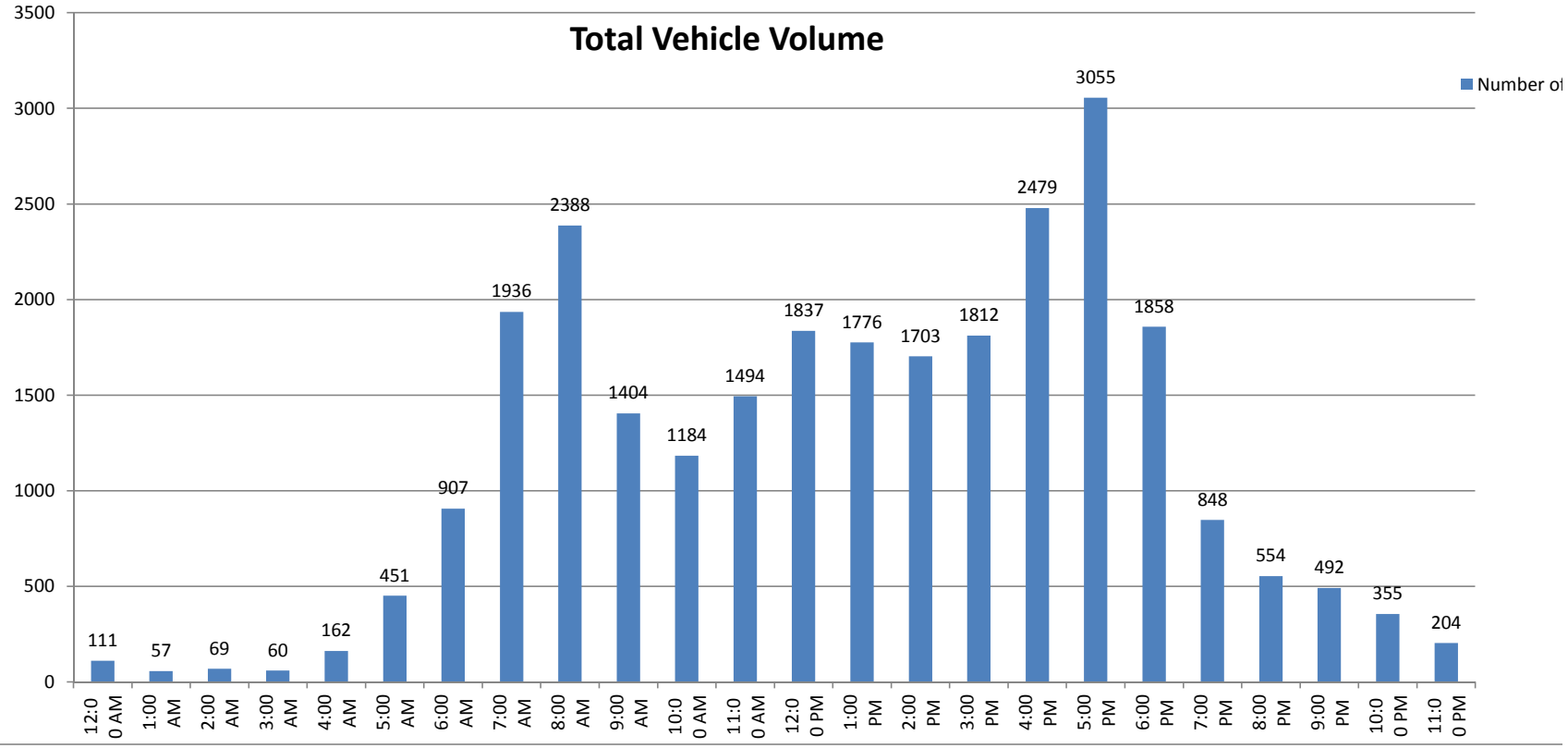
Main Street

B/ Redhill Avenue - MacArthur Boulevard

2/27/2014

Westbound

Start Time	2/27/2014
12:00 AM	111
1:00 AM	57
2:00 AM	69
3:00 AM	60
4:00 AM	162
5:00 AM	451
6:00 AM	907
7:00 AM	1936
8:00 AM	2388
9:00 AM	1404
10:00 AM	1184
11:00 AM	1494
12:00 PM	1837
1:00 PM	1776
2:00 PM	1703
3:00 PM	1812
4:00 PM	2479
5:00 PM	3055
6:00 PM	1858
7:00 PM	848
8:00 PM	554
9:00 PM	492
10:00 PM	355
11:00 PM	204
Total	27196



Volumes represent the combined totals for both directions

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City of Irvine
Main Street
B/ MacArthur Boulevard - Von Karman Avenue

File Name 234
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/26/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	9	239			26	276				
12:15	13	247			18	256				
12:30	12	241			23	248				
12:45	11	279	45	1006	8	230	75	1010	120	2016
1:00	7	263			15	253				
1:15	4	278			12	251				
1:30	5	232			13	279				
1:45	4	244	20	1017	10	220	50	1003	70	2020
2:00	4	197			22	253				
2:15	4	204			7	248				
2:30	1	207			20	350				
2:45	5	244	14	852	15	254	64	1105	78	1957
3:00	8	201			15	340				
3:15	9	214			6	255				
3:30	16	198			13	380				
3:45	33	210	66	823	3	301	37	1276	103	2099
4:00	18	230			6	363				
4:15	28	257			6	340				
4:30	54	258			13	409				
4:45	133	256	233	1001	22	339	47	1451	280	2452
5:00	72	276			21	406				
5:15	89	346			31	408				
5:30	144	386			33	370				
5:45	257	319	562	1327	49	317	134	1501	696	2828
6:00	166	326			82	358				
6:15	198	297			62	284				
6:30	217	218			76	248				
6:45	291	184	872	1025	86	228	306	1118	1178	2143
7:00	356	136			127	188				
7:15	341	126			170	140				
7:30	355	112			214	131				
7:45	487	106	1539	480	210	95	721	554	2260	1034
8:00	415	100			256	110				
8:15	430	82			250	91				
8:30	379	95			218	80				
8:45	359	70	1583	347	218	61	942	342	2525	689
9:00	328	69			227	75				
9:15	256	53			192	66				
9:30	225	58			169	76				
9:45	210	76	1019	256	156	54	744	271	1763	527
10:00	174	51			177	59				
10:15	162	31			154	41				
10:30	156	40			128	56				
10:45	194	40	686	162	164	29	623	185	1309	347
11:00	165	25			193	42				
11:15	190	21			190	17				
11:30	227	23			251	71				
11:45	242	12	824	81	270	20	904	150	1728	231
Totals	7463	8377			4647	9966				
Combined Totals		15840				14613				
ADT										30453
AM Peak Hour	745	AM			800	AM				
Volume	1711				942					
P.H.F.	0.878				0.920					
PM Peak Hour		515	PM			430	PM			
Volume		1377				1562				
P.H.F.		0.892				0.955				
Percentage	47.1%	52.9%			31.8%	68.2%				

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Counts Unlimited, Inc.
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24 Hour Volume Plot

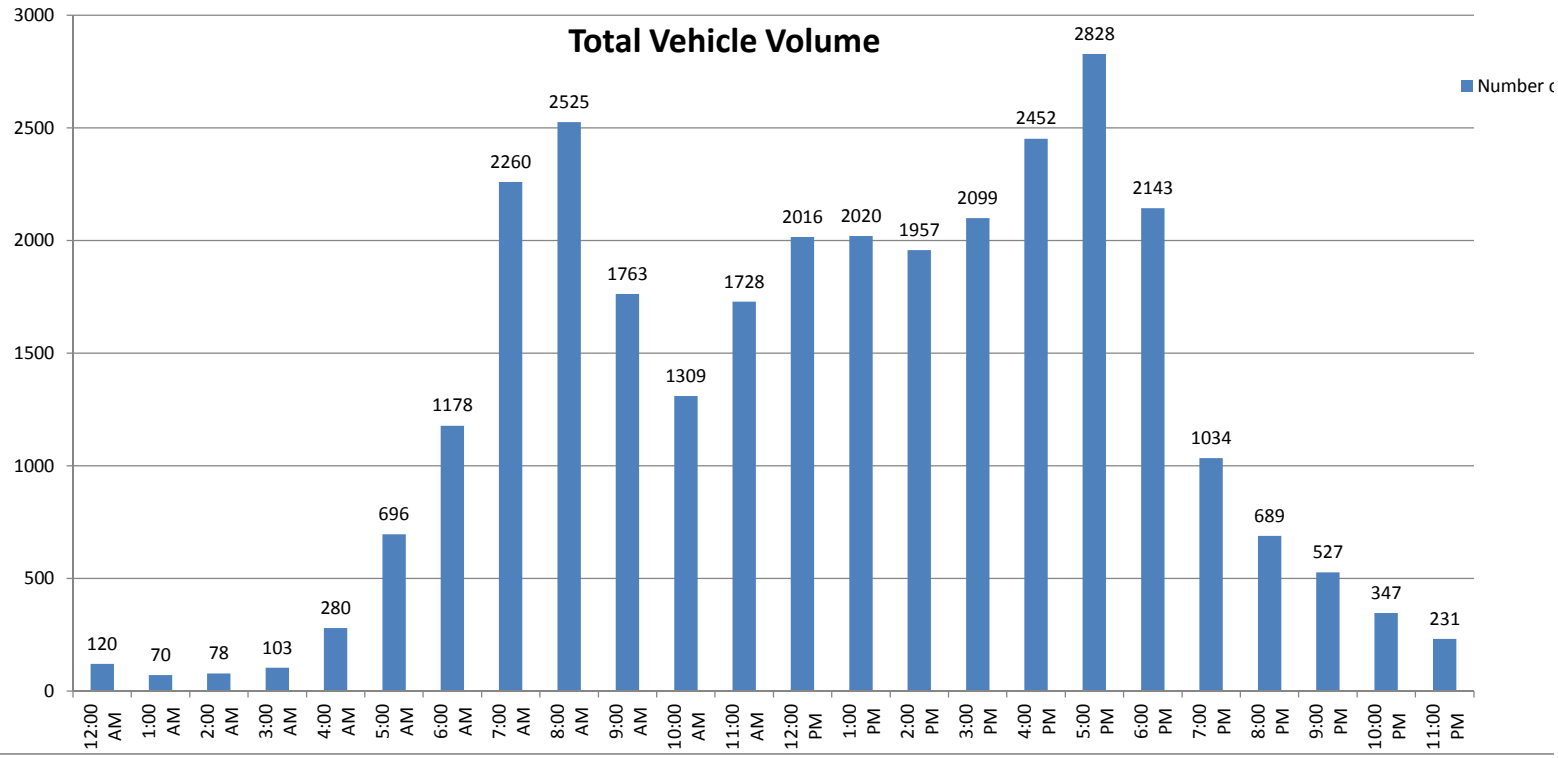
Main Street

B/ MacArthur Boulevard - Von Karman Avenue

2/26/2014

Westbound

Start Time	2/26/2014
12:00 AM	120
1:00 AM	70
2:00 AM	78
3:00 AM	103
4:00 AM	280
5:00 AM	696
6:00 AM	1178
7:00 AM	2260
8:00 AM	2525
9:00 AM	1763
10:00 AM	1309
11:00 AM	1728
12:00 PM	2016
1:00 PM	2020
2:00 PM	1957
3:00 PM	2099
4:00 PM	2452
5:00 PM	2828
6:00 PM	2143
7:00 PM	1034
8:00 PM	689
9:00 PM	527
10:00 PM	347
11:00 PM	231
Total	30453



Volumes represent the combined totals for both directions

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City of Irvine
Main Street
B/ Von Karman Avenue - Jamboree Road

File Name 235
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/27/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	9	225			5	154				
12:15	10	213			4	210				
12:30	10	244			6	183				
12:45	11	231	40	913	2	195	17	742	57	1655
1:00	11	233			2	191				
1:15	9	202			2	175				
1:30	0	213			4	166				
1:45	8	159	28	807	3	164	11	696	39	1503
2:00	5	190			1	168				
2:15	4	231			1	138				
2:30	4	172			4	147				
2:45	5	200	18	793	2	165	8	618	26	1411
3:00	3	234			5	126				
3:15	3	267			2	127				
3:30	7	191			4	132				
3:45	17	328	30	1020	4	142	15	527	45	1547
4:00	6	277			4	137				
4:15	10	380			5	149				
4:30	12	344			6	154				
4:45	14	504	42	1505	25	179	40	619	82	2124
5:00	13	513			14	209				
5:15	12	517			28	222				
5:30	36	425			44	209				
5:45	47	404	108	1859	61	209	147	849	255	2708
6:00	41	371			58	161				
6:15	37	242			72	166				
6:30	62	183			78	118				
6:45	91	195	231	991	127	142	335	587	566	1578
7:00	99	165			154	83				
7:15	139	160			189	79				
7:30	149	124			232	77				
7:45	167	153	554	602	277	56	852	295	1406	897
8:00	139	126			306	54				
8:15	151	98			325	40				
8:30	144	106			311	34				
8:45	137	104	571	434	296	31	1238	159	1809	593
9:00	133	80			298	42				
9:15	114	68			163	27				
9:30	88	57			172	28				
9:45	84	54	419	259	150	35	783	132	1202	391
10:00	107	48			138	17				
10:15	120	47			110	29				
10:30	123	42			109	18				
10:45	142	32	492	169	107	10	464	74	956	243
11:00	176	30			119	15				
11:15	206	34			110	10				
11:30	236	18			115	10				
11:45	260	20	878	102	172	7	516	42	1394	144
Totals	3411	9454			4426	5340				
Combined Totals		12865				9766				
ADT										22631
AM Peak Hour	1100	AM			800	AM				
Volume	878				1238					
P.H.F.	0.844				0.952					
PM Peak Hour		445	PM			500	PM			
Volume		1959				849				
P.H.F.		0.947				0.956				
Percentage	26.5%	73.5%			45.3%	54.7%				

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Counts Unlimited, Inc.
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Corona, CA 92878

24 Hour Volume Plot

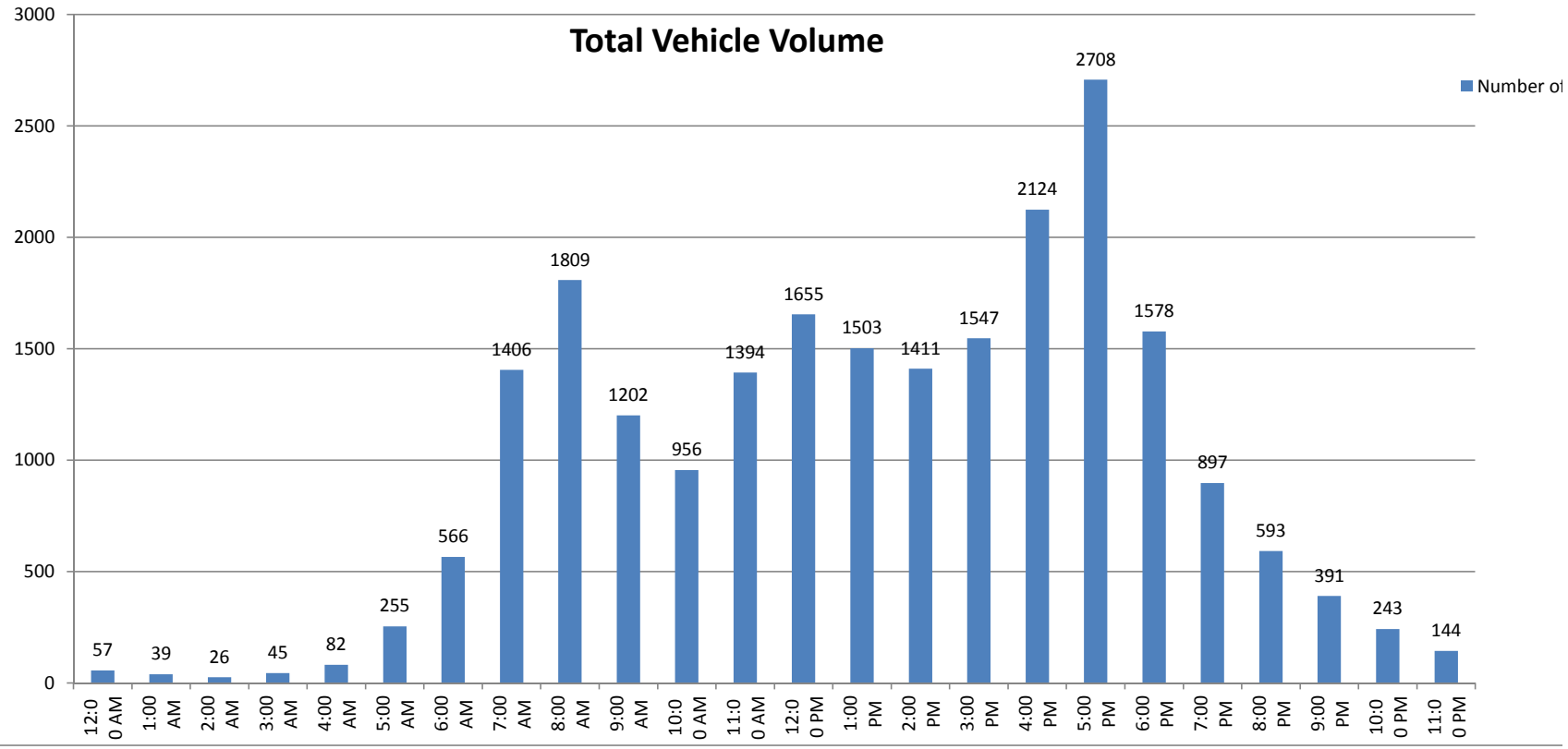
Main Street

B/ Von Karman Avenue - Jamboree Road

2/27/2014

Westbound

Start Time	2/27/2014
12:00 AM	57
1:00 AM	39
2:00 AM	26
3:00 AM	45
4:00 AM	82
5:00 AM	255
6:00 AM	566
7:00 AM	1406
8:00 AM	1809
9:00 AM	1202
10:00 AM	956
11:00 AM	1394
12:00 PM	1655
1:00 PM	1503
2:00 PM	1411
3:00 PM	1547
4:00 PM	2124
5:00 PM	2708
6:00 PM	1578
7:00 PM	897
8:00 PM	593
9:00 PM	391
10:00 PM	243
11:00 PM	144
Total	22631



Volumes represent the combined totals for both directions

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PO Box 1178
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City of Irvine
Main Street
B/ Jamboree Road - Harvard Avenue

File Name 236
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/26/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	24	222			15	179				
12:15	17	217			8	178				
12:30	19	234			19	182				
12:45	13	236	73	909	6	228	48	767	121	1676
1:00	14	237			8	183				
1:15	11	186			14	184				
1:30	4	194			1	197				
1:45	3	178	32	795	2	160	25	724	57	1519
2:00	4	169			2	165				
2:15	5	155			1	165				
2:30	4	170			4	152				
2:45	7	176	20	670	2	168	9	650	29	1320
3:00	8	214			2	155				
3:15	5	212			0	155				
3:30	6	188			8	158				
3:45	6	203	25	817	6	150	16	618	41	1435
4:00	6	240			4	155				
4:15	15	245			6	158				
4:30	8	365			12	152				
4:45	5	315	34	1165	19	199	41	664	75	1829
5:00	25	486			21	201				
5:15	13	480			34	159				
5:30	23	468			47	179				
5:45	29	446	90	1880	52	194	154	733	244	2613
6:00	38	419			56	192				
6:15	53	374			69	183				
6:30	63	312			78	155				
6:45	88	252	242	1357	130	157	333	687	575	2044
7:00	106	209			140	131				
7:15	133	194			205	157				
7:30	164	192			261	124				
7:45	201	167	604	762	321	99	927	511	1531	1273
8:00	170	134			349	87				
8:15	185	129			343	74				
8:30	172	119			275	70				
8:45	175	115	702	497	277	79	1244	310	1946	807
9:00	162	115			232	56				
9:15	132	106			159	57				
9:30	136	83			185	57				
9:45	130	89	560	393	161	53	737	223	1297	616
10:00	122	80			137	44				
10:15	110	56			151	45				
10:30	154	63			144	45				
10:45	129	44	515	243	133	45	565	179	1080	422
11:00	147	46			153	39				
11:15	171	34			143	25				
11:30	200	29			165	18				
11:45	229	20	747	129	180	5	641	87	1388	216
Totals	3644	9617			4740	6153				
Combined Totals		13261				10893				
ADT										24154
AM Peak Hour	1100	AM			745	AM				
Volume	747				1288					
P.H.F.	0.816				0.923					
PM Peak Hour		500	PM			2445	PM			
Volume		1880				792				
P.H.F.		0.967				0.868				
Percentage	27.5%	72.5%			43.5%	56.5%				

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

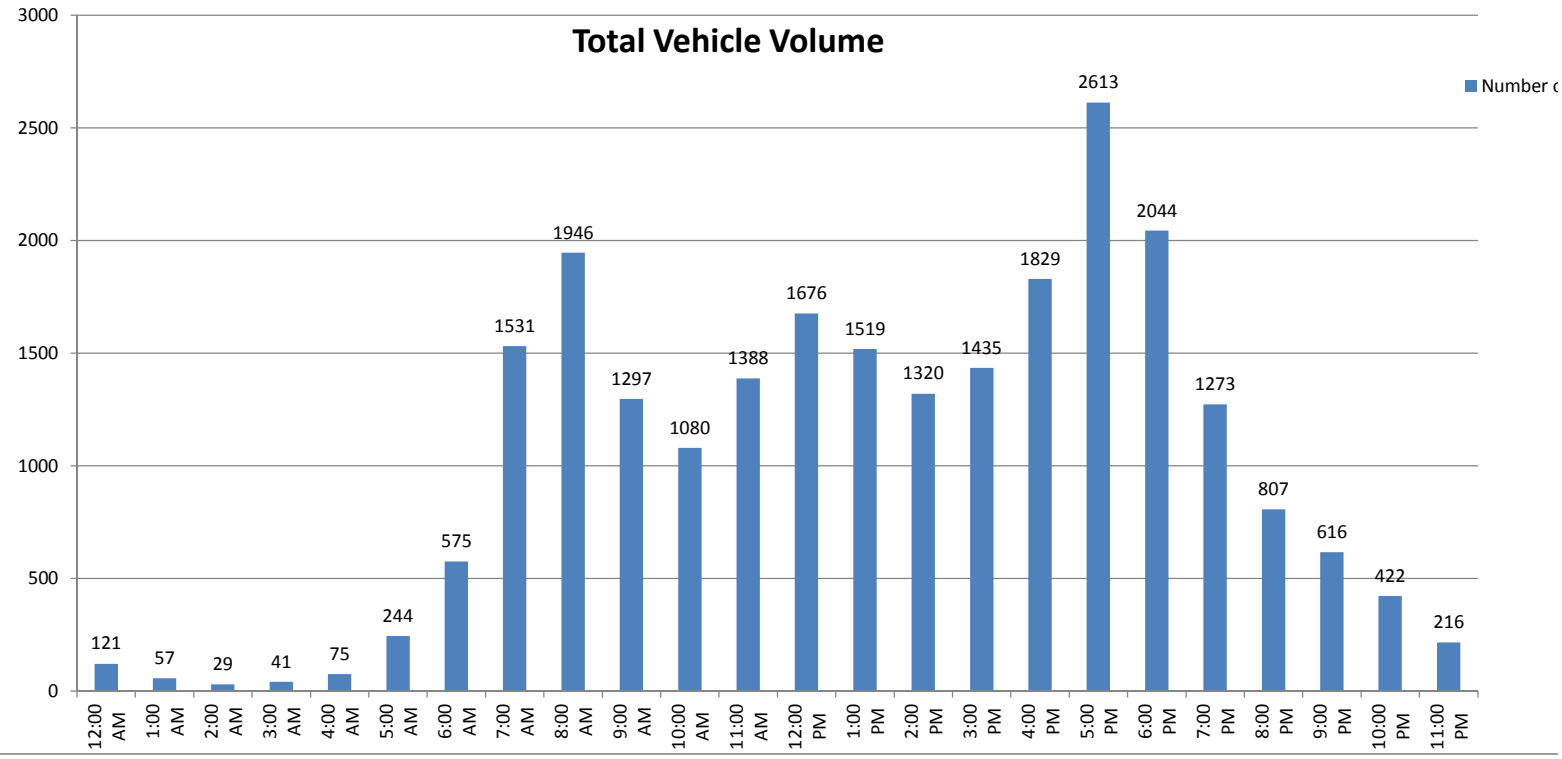
Main Street

B/ Jamboree Road - Harvard Avenue

2/26/2014

Westbound

Start Time	2/26/2014
12:00 AM	121
1:00 AM	57
2:00 AM	29
3:00 AM	41
4:00 AM	75
5:00 AM	244
6:00 AM	575
7:00 AM	1531
8:00 AM	1946
9:00 AM	1297
10:00 AM	1080
11:00 AM	1388
12:00 PM	1676
1:00 PM	1519
2:00 PM	1320
3:00 PM	1435
4:00 PM	1829
5:00 PM	2613
6:00 PM	2044
7:00 PM	1273
8:00 PM	807
9:00 PM	616
10:00 PM	422
11:00 PM	216
Total	24154



Volumes represent the combined totals for both directions

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City of Irvine
Main Street
B/ Harvard Avenue - Culver Drive

File Name 237
Site Code: 192-14002
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/26/2014	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	9	95			3	50				
12:15	7	77			1	57				
12:30	11	97			4	56				
12:45	6	110	33	379	5	74	13	237	46	616
1:00	4	125			3	94				
1:15	3	105			3	96				
1:30	2	91			2	64				
1:45	2	64	11	385	0	87	8	341	19	726
2:00	1	85			0	58				
2:15	1	79			2	66				
2:30	2	84			0	65				
2:45	1	92	5	340	0	83	2	272	7	612
3:00	0	107			0	55				
3:15	0	107			1	55				
3:30	2	95			2	67				
3:45	2	133	4	442	1	41	4	218	8	660
4:00	2	127			1	50				
4:15	6	158			1	45				
4:30	1	210			4	55				
4:45	1	224	10	719	4	70	10	220	20	939
5:00	4	307			6	92				
5:15	6	309			8	70				
5:30	2	344			13	80				
5:45	6	303	18	1263	18	88	45	330	63	1593
6:00	15	283			17	79				
6:15	19	253			23	76				
6:30	15	228			36	72				
6:45	37	144	86	908	51	57	127	284	213	1192
7:00	31	117			79	53				
7:15	44	108			99	62				
7:30	105	95			157	42				
7:45	166	88	346	408	216	32	551	189	897	597
8:00	76	69			262	30				
8:15	66	57			216	38				
8:30	61	69			188	28				
8:45	52	58	255	253	180	22	846	118	1101	371
9:00	56	54			105	18				
9:15	61	39			81	24				
9:30	38	36			101	16				
9:45	57	44	212	173	77	21	364	79	576	252
10:00	39	32			57	15				
10:15	41	25			51	14				
10:30	59	24			45	13				
10:45	36	26	175	107	58	14	211	56	386	163
11:00	59	18			54	8				
11:15	73	11			52	8				
11:30	77	9			65	6				
11:45	79	3	288	41	63	6	234	28	522	69
Totals	1443	5418			2415	2372				
Combined Totals		6861				4787				
ADT										11648
AM Peak Hour	730	AM			745	AM				
Volume	413				882					
P.H.F.	0.622				0.842					
PM Peak Hour		500	PM			100	PM			
Volume		1263				341				
P.H.F.		0.918				0.888				
Percentage	21.0%	79.0%			50.4%	49.6%				

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

24 Hour Volume Plot

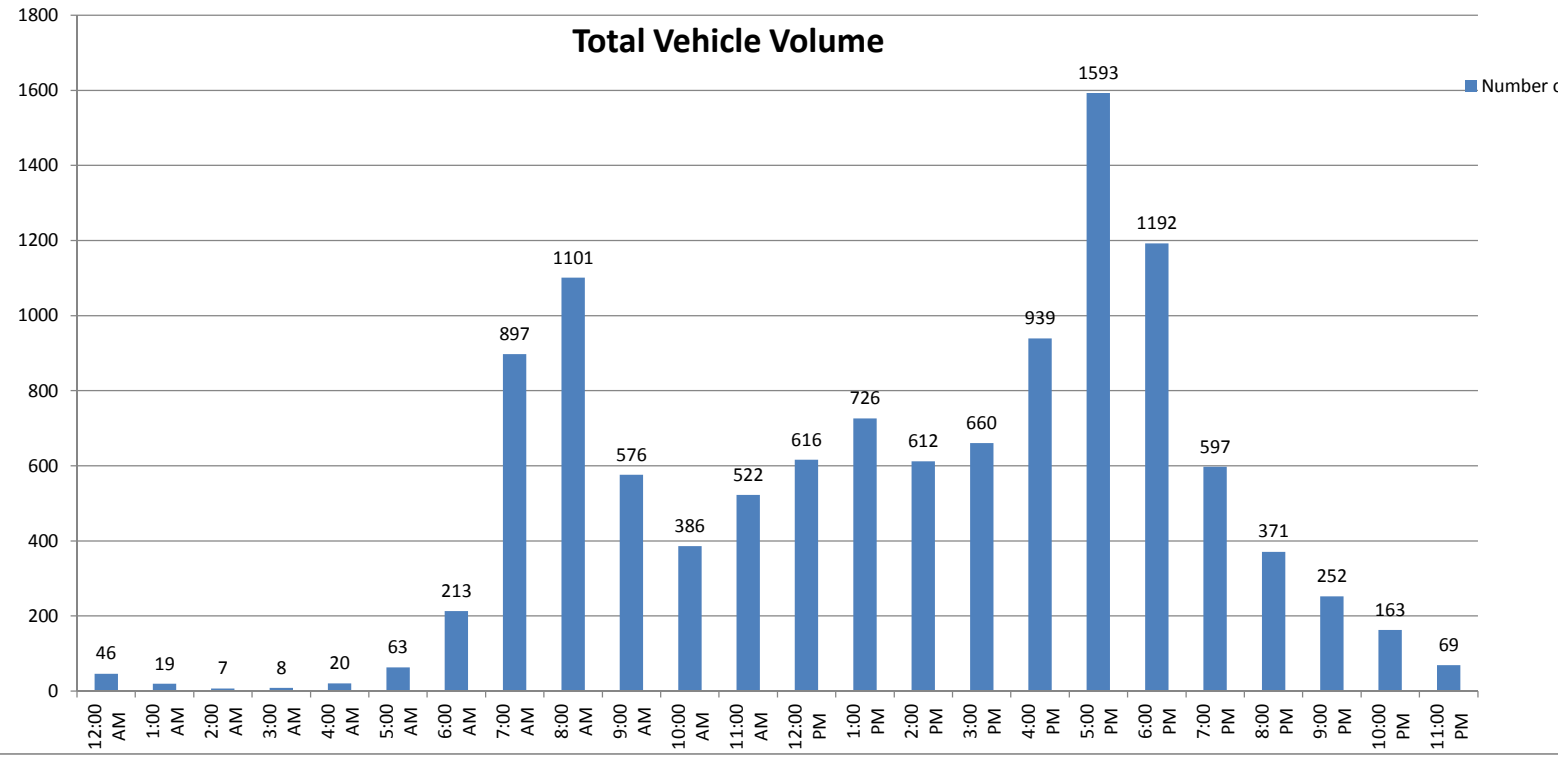
Main Street

B/ Harvard Avenue - Culver Drive

2/26/2014

Westbound

Start Time	2/26/2014
12:00 AM	46
1:00 AM	19
2:00 AM	7
3:00 AM	8
4:00 AM	20
5:00 AM	63
6:00 AM	213
7:00 AM	897
8:00 AM	1101
9:00 AM	576
10:00 AM	386
11:00 AM	522
12:00 PM	616
1:00 PM	726
2:00 PM	612
3:00 PM	660
4:00 PM	939
5:00 PM	1593
6:00 PM	1192
7:00 PM	597
8:00 PM	371
9:00 PM	252
10:00 PM	163
11:00 PM	69
Total	11648



Volumes represent the combined totals for both directions

Phone: 951-268-6268
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Transportation Studies, Inc.
2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : ARMSTRONG AVENUE
Segment : S/O VALENCIA AVENUE
Client : CITY OF TUSTIN

Site: TUSTIN
Date: 05/21/14

Interval	NB				SB				Combined				Day: Wednesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	0	0	4	12	0	0	3	19	0	0	7	31	
12:15	0		3		0		7		0		10		
12:30	0		3		0		6		0		9		
12:45	0		2		0		3		0		5		
01:00	0	0	5	21	0	0	5	15	0	0	10	36	
01:15	0		7		0		4		0		11		
01:30	0		4		0		4		0		8		
01:45	0		5		0		2		0		7		
02:00	0	0	7	21	0	0	2	13	0	0	9	34	
02:15	0		3		0		1		0		4		
02:30	0		8		0		8		0		16		
02:45	0		3		0		2		0		5		
03:00	0	0	6	43	0	0	1	11	0	0	7	54	
03:15	0		15		0		2		0		17		
03:30	0		14		0		6		0		20		
03:45	0		8		0		2		0		10		
04:00	0	0	8	70	0	1	6	18	0	1	14	88	
04:15	0		48		0		2		0		50		
04:30	0		13		1		9		1		22		
04:45	0		1		0		1		0		2		
05:00	0	1	3	6	3	52	5	21	3	53	8	27	
05:15	0		0		2		10		2		10		
05:30	0		1		10		3		10		4		
05:45	1		2		37		3		38		5		
06:00	0	5	7	84	30	107	5	31	30	112	12	115	
06:15	2		76		48		1		50		77		
06:30	0		0		13		11		13		11		
06:45	3		1		16		14		19		15		
07:00	1	5	0	1	17	45	14	23	18	50	14	24	
07:15	2		0		14		4		16		4		
07:30	0		1		5		3		5		4		
07:45	2		0		9		2		11		2		
08:00	0	10	8	54	3	17	2	3	3	27	10	57	
08:15	4		11		2		1		6		12		
08:30	3		17		3		0		6		17		
08:45	3		18		9		0		12		18		
09:00	1	16	0	20	9	13	0	1	10	29	0	21	
09:15	3		2		1		0		4		2		
09:30	4		18		2		1		6		19		
09:45	8		0		1		0		9		0		
10:00	7	13	1	1	3	13	0	0	10	26	1	1	
10:15	2		0		2		0		4		0		
10:30	3		0		3		0		6		0		
10:45	1		0		5		0		6		0		
11:00	13	50	0	0	24	42	0	0	37	92	0	0	
11:15	11		0		8		0		19		0		
11:30	18		0		3		0		21		0		
11:45	8		0		7		0		15		0		
Totals	100		333		290		155		390		488		
Split%	25.6		68.2		74.4		31.8						
Day Totals		433				445				878			
Day Splits		49.3				50.7							
Peak Hour	11:00		05:30		05:45		06:30		05:45		06:15		
Volume	50		86		128		43		131		117		
Factor	0.69		0.28		0.67		0.77		0.65		0.38		

* Data File : D1405061

INTERSECTION
PEAK HOUR COUNTS

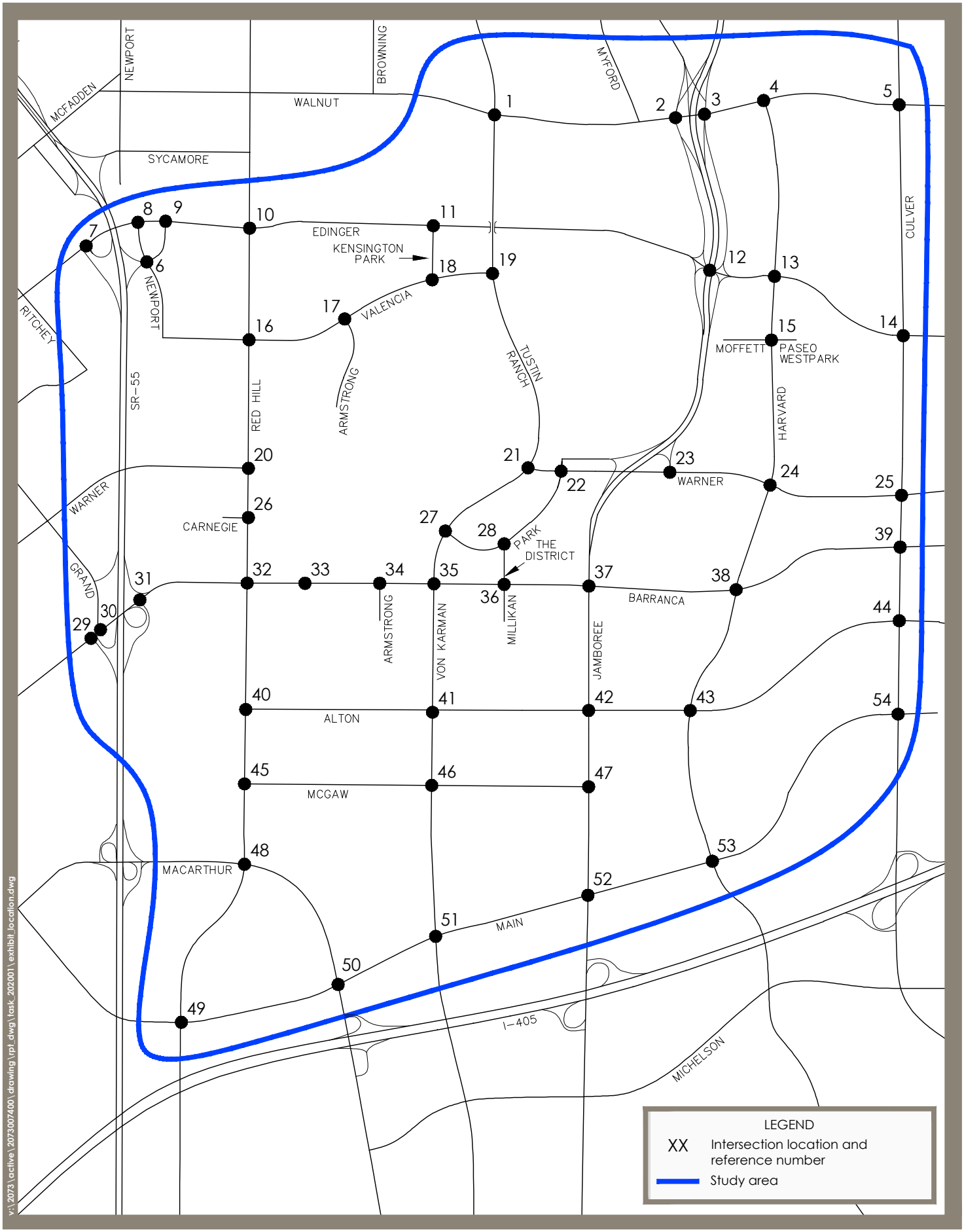

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Figure A-2

Existing Intersection Location Reference Map

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

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: WALNUT AVENUE

File Name : H1405080
Site Code : 00000554
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

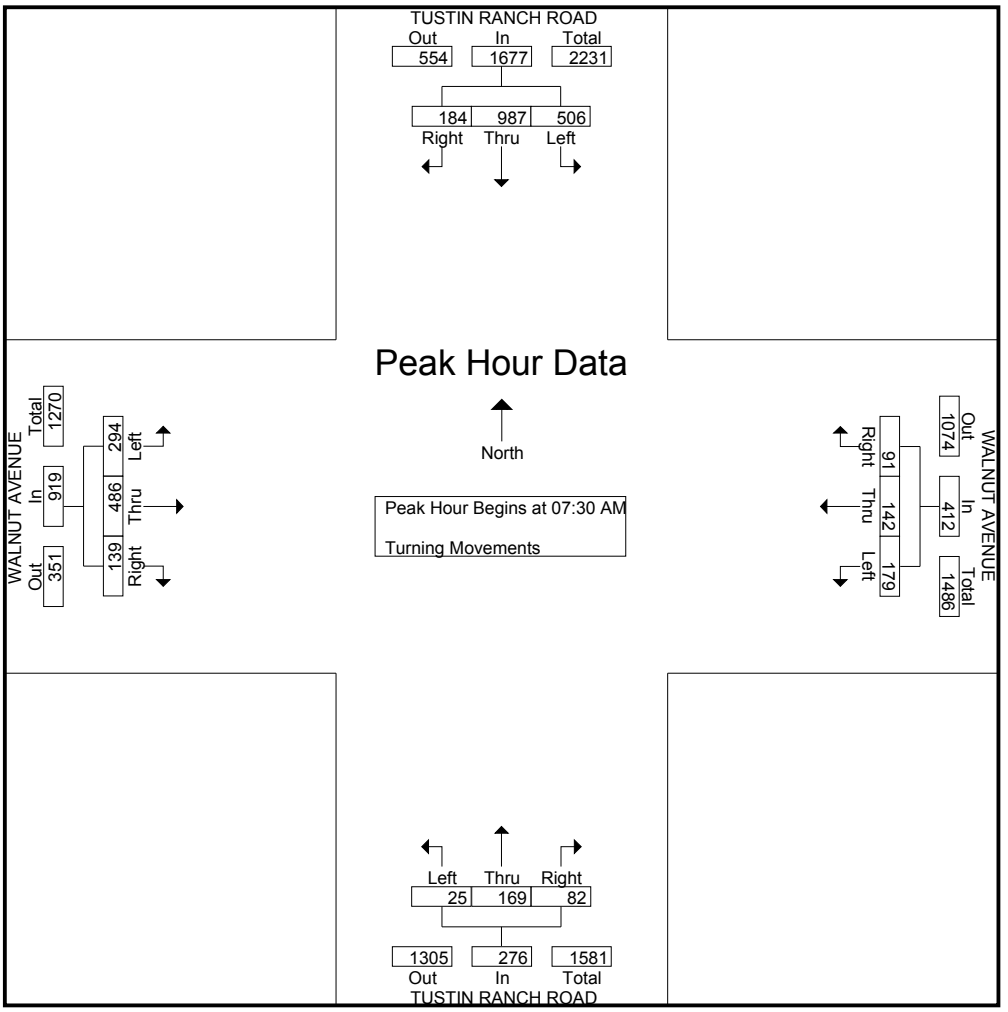
	TUSTIN RANCH ROAD Southbound			WALNUT AVENUE Westbound			TUSTIN RANCH ROAD Northbound			WALNUT AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	166	130	20	31	6	20	36	7	13	100	36	580
07:15 AM	29	185	148	26	34	10	12	26	4	26	103	67	670
07:30 AM	53	250	132	21	22	22	22	37	5	32	101	91	788
07:45 AM	54	284	152	22	42	29	24	36	7	41	123	87	901
Total	151	885	562	89	129	67	78	135	23	112	427	281	2939
08:00 AM	43	233	118	27	38	33	19	50	6	43	138	71	819
08:15 AM	34	220	104	21	40	95	17	46	7	23	124	45	776
08:30 AM	27	215	138	25	48	34	19	30	5	15	106	37	699
08:45 AM	18	189	122	35	31	13	16	27	11	18	93	58	631
Total	122	857	482	108	157	175	71	153	29	99	461	211	2925
*** BREAK ***													
04:00 PM	33	63	63	50	153	19	44	242	42	10	61	48	828
04:15 PM	45	74	79	117	147	26	26	265	62	10	48	62	961
04:30 PM	79	81	73	188	203	22	22	266	54	10	67	61	1126
04:45 PM	68	76	103	130	171	24	23	290	63	12	80	51	1091
Total	225	294	318	485	674	91	115	1063	221	42	256	222	4006
05:00 PM	82	99	68	138	194	34	32	295	44	12	58	67	1123
05:15 PM	92	114	82	140	190	20	45	335	76	10	74	79	1257
05:30 PM	89	114	72	148	208	33	29	287	78	17	74	67	1216
05:45 PM	97	109	72	103	172	23	35	298	63	8	82	92	1154
Total	360	436	294	529	764	110	141	1215	261	47	288	305	4750
Grand Total	858	2472	1656	1211	1724	443	405	2566	534	300	1432	1019	14620
Apprch %	17.2	49.6	33.2	35.8	51	13.1	11.6	73.2	15.2	10.9	52.1	37	
Total %	5.9	16.9	11.3	8.3	11.8	3	2.8	17.6	3.7	2.1	9.8	7	

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

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: WALNUT AVENUE

File Name : H1405080
Site Code : 00000554
Start Date : 6/10/2014
Page No : 2

	TUSTIN RANCH ROAD Southbound				WALNUT AVENUE Westbound				TUSTIN RANCH ROAD Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	53	250	132	435	21	22	22	65	22	37	5	64	32	101	**91**	224	788
07:45 AM	**54**	**284**	**152**	**490**	22	**42**	29	93	**24**	36	**7**	67	41	123	87	251	**901**
08:00 AM	43	233	118	394	**27**	38	33	98	19	**50**	6	**75**	**43**	**138**	71	**252**	819
08:15 AM	34	220	104	358	21	40	**95**	**156**	17	46	7	70	23	124	45	192	776
Total Volume	184	987	506	1677	91	142	179	412	82	169	25	276	139	486	294	919	3284
% App. Total	11	58.9	30.2		22.1	34.5	43.4		29.7	61.2	9.1		15.1	52.9	32		
PHF	.852	.869	.832	.856	.843	.845	.471	.660	.854	.845	.893	.920	.808	.880	.808	.912	.911

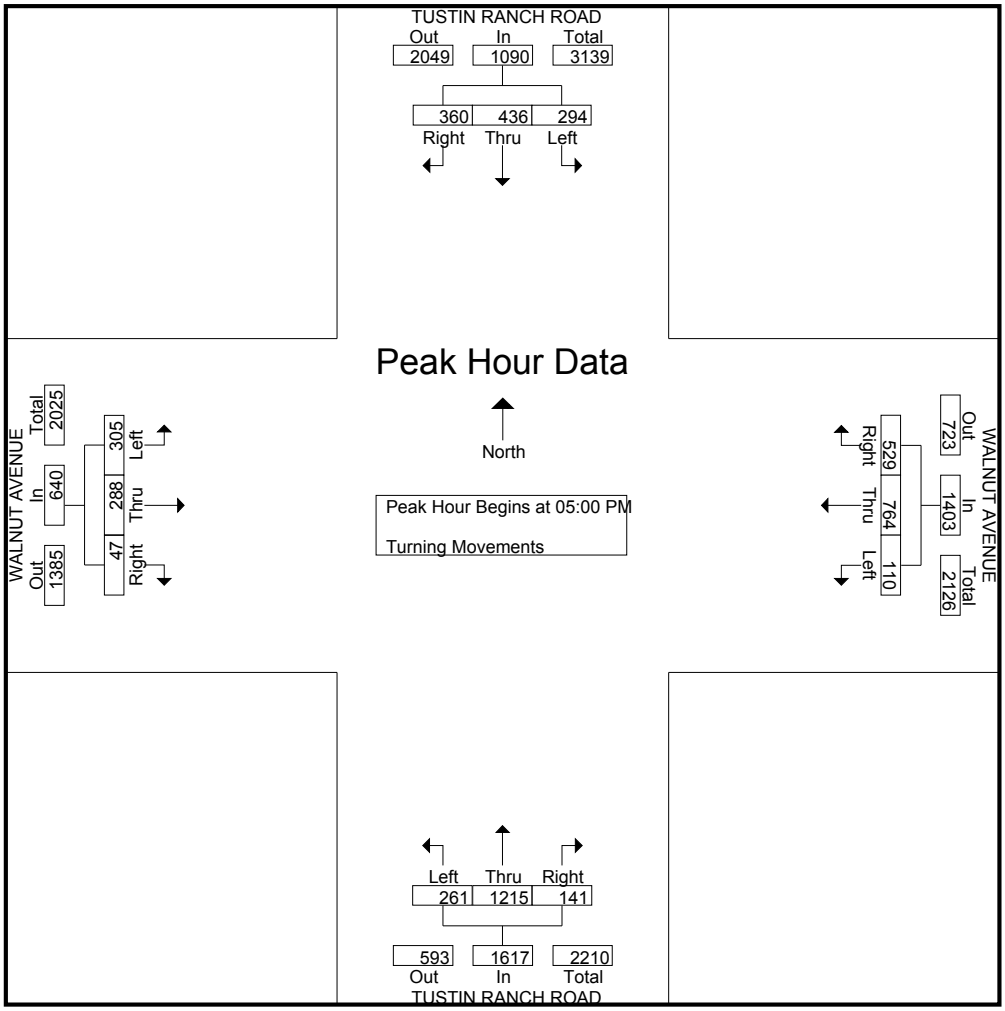


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: WALNUT AVENUE

File Name : H1405080
Site Code : 00000554
Start Date : 6/10/2014
Page No : 3

	TUSTIN RANCH ROAD Southbound				WALNUT AVENUE Westbound				TUSTIN RANCH ROAD Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	82	99	68	249	138	194	**34**	366	32	295	44	371	12	58	67	137	1123
05:15 PM	92	**114**	**82**	**288**	140	190	20	350	**45**	**335**	76	**456**	10	74	79	163	**1257**
05:30 PM	89	114	72	275	**148**	**208**	33	**389**	29	287	**78**	394	**17**	74	67	158	1216
05:45 PM	**97**	109	72	278	103	172	23	298	35	298	63	396	8	**82**	**92**	**182**	1154
Total Volume	360	436	294	1090	529	764	110	1403	141	1215	261	1617	47	288	305	640	4750
% App. Total	33	40	27		37.7	54.5	7.8		8.7	75.1	16.1		7.3	45	47.7		
PHF	.928	.956	.896	.946	.894	.918	.809	.902	.783	.907	.837	.887	.691	.878	.829	.879	.945



City: IRVINE
N-S Direction: JAMBOREE ROAD SB
E-W Direction: WALNUT AVENUE

File Name : H1404043
Site Code : 131
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

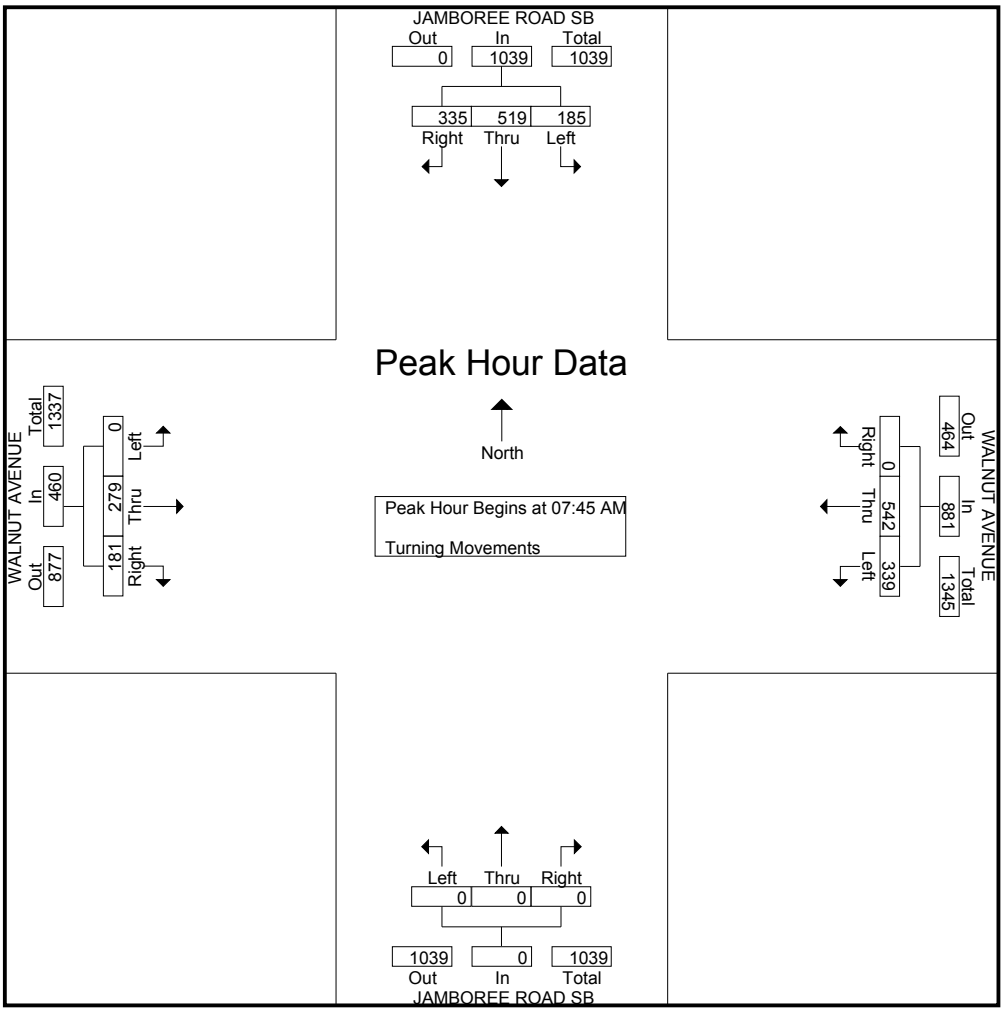
	JAMBOREE ROAD SB Southbound			WALNUT AVENUE Westbound			JAMBOREE ROAD SB Northbound			WALNUT AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	63	99	34	0	76	57	0	0	0	24	23	0	376
07:15 AM	65	114	28	0	80	66	0	0	0	26	45	0	424
07:30 AM	71	120	48	0	98	85	0	0	0	52	45	0	519
07:45 AM	81	156	35	0	147	99	0	0	0	41	71	0	630
Total	280	489	145	0	401	307	0	0	0	143	184	0	1949
08:00 AM	90	122	66	0	132	82	0	0	0	47	78	0	617
08:15 AM	78	110	35	0	126	79	0	0	0	45	62	0	535
08:30 AM	86	131	49	0	137	79	0	0	0	48	68	0	598
08:45 AM	76	126	49	0	141	93	0	0	0	68	68	0	621
Total	330	489	199	0	536	333	0	0	0	208	276	0	2371
*** BREAK ***													
04:00 PM	33	76	51	0	156	47	0	0	0	86	155	0	604
04:15 PM	36	87	52	0	155	46	0	0	0	69	117	0	562
04:30 PM	29	83	51	0	213	55	0	0	0	60	127	0	618
04:45 PM	27	93	52	0	187	55	0	0	0	74	153	0	641
Total	125	339	206	0	711	203	0	0	0	289	552	0	2425
05:00 PM	31	105	55	0	219	59	0	0	0	89	194	0	752
05:15 PM	38	75	71	0	205	62	0	0	0	113	166	0	730
05:30 PM	39	106	60	0	212	63	0	0	0	103	178	0	761
05:45 PM	35	99	57	0	246	65	0	0	0	74	167	0	743
Total	143	385	243	0	882	249	0	0	0	379	705	0	2986
Grand Total	878	1702	793	0	2530	1092	0	0	0	1019	1717	0	9731
Apprch %	26	50.5	23.5	0	69.9	30.1	0	0	0	37.2	62.8	0	
Total %	9	17.5	8.1	0	26	11.2	0	0	0	10.5	17.6	0	

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

City: IRVINE
N-S Direction: JAMBOREE ROAD SB
E-W Direction: WALNUT AVENUE

File Name : H1404043
Site Code : 131
Start Date : 6/10/2014
Page No : 2

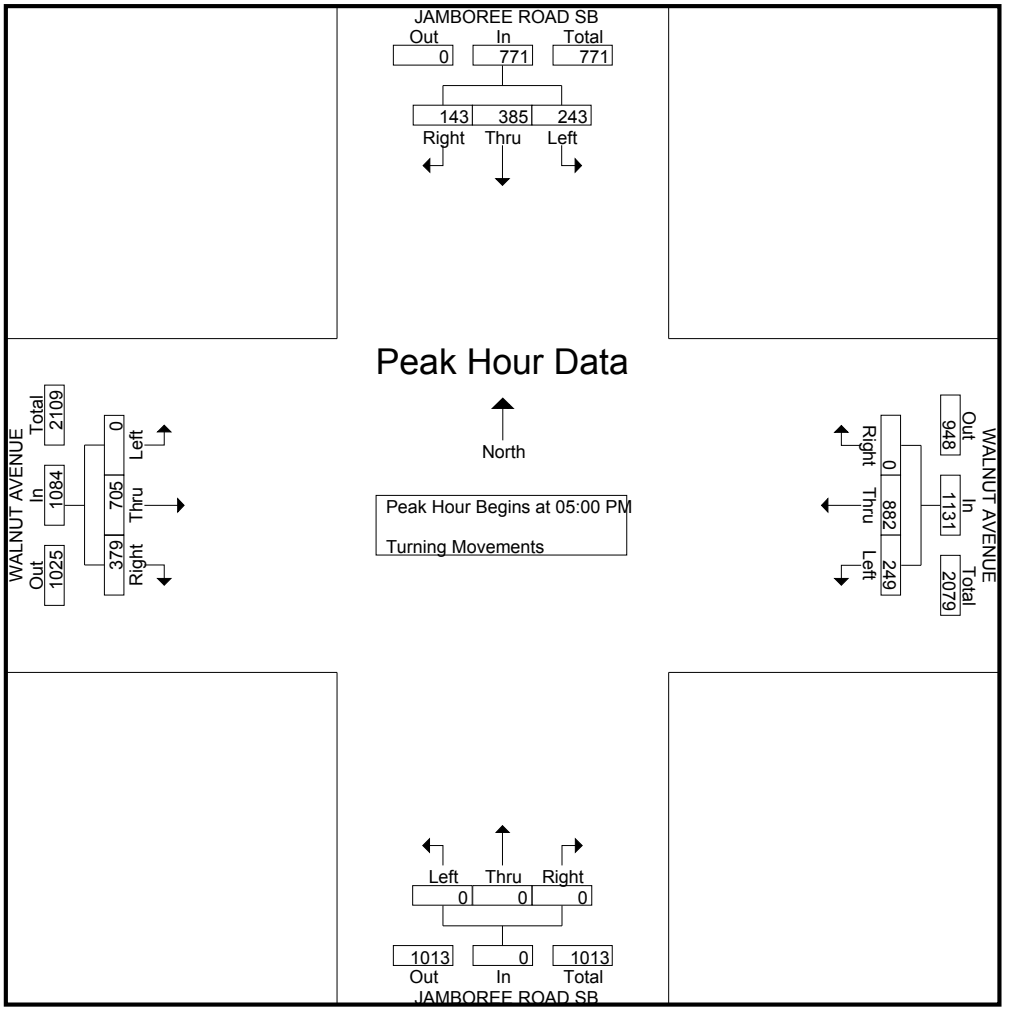
	JAMBOREE ROAD SB Southbound				WALNUT AVENUE Westbound				JAMBOREE ROAD SB Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	81	**156**	35	272	0	**147**	**99**	**246**	0	0	0	0	41	71	0	112	**630**
08:00 AM	**90**	122	**66**	**278**	0	132	82	214	0	0	0	0	47	**78**	0	**125**	617
08:15 AM	78	110	35	223	0	126	79	205	0	0	0	0	45	62	0	107	535
08:30 AM	86	131	49	266	0	137	79	216	0	0	0	0	**48**	68	0	116	598
Total Volume	335	519	185	1039	0	542	339	881	0	0	0	0	181	279	0	460	2380
% App. Total	32.2	50	17.8		0	61.5	38.5		0	0	0		39.3	60.7	0		
PHF	.931	.832	.701	.934	.000	.922	.856	.895	.000	.000	.000	.000	.943	.894	.000	.920	.944



City: IRVINE
N-S Direction: JAMBOREE ROAD SB
E-W Direction: WALNUT AVENUE

File Name : H1404043
Site Code : 131
Start Date : 6/10/2014
Page No : 3

	JAMBOREE ROAD SB Southbound				WALNUT AVENUE Westbound				JAMBOREE ROAD SB Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	31	105	55	191	0	219	59	278	0	0	0	0	89	**194**	0	**283**	752
05:15 PM	38	75	**71**	184	0	205	62	267	0	0	0	0	**113**	166	0	279	730
05:30 PM	**39**	**106**	60	**205**	0	212	63	275	0	0	0	0	103	178	0	281	**761**
05:45 PM	35	99	57	191	0	**246**	**65**	**311**	0	0	0	0	74	167	0	241	743
Total Volume	143	385	243	771	0	882	249	1131	0	0	0	0	379	705	0	1084	2986
% App. Total	18.5	49.9	31.5		0	78	22		0	0	0		35	65	0		
PHF	.917	.908	.856	.940	.000	.896	.958	.909	.000	.000	.000	.000	.838	.909	.000	.958	.981



City: IRVINE
N-S Direction: JAMBOREE ROAD NB
E-W Direction: WALNUT AVENUE

File Name : H1404044
Site Code : 132
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

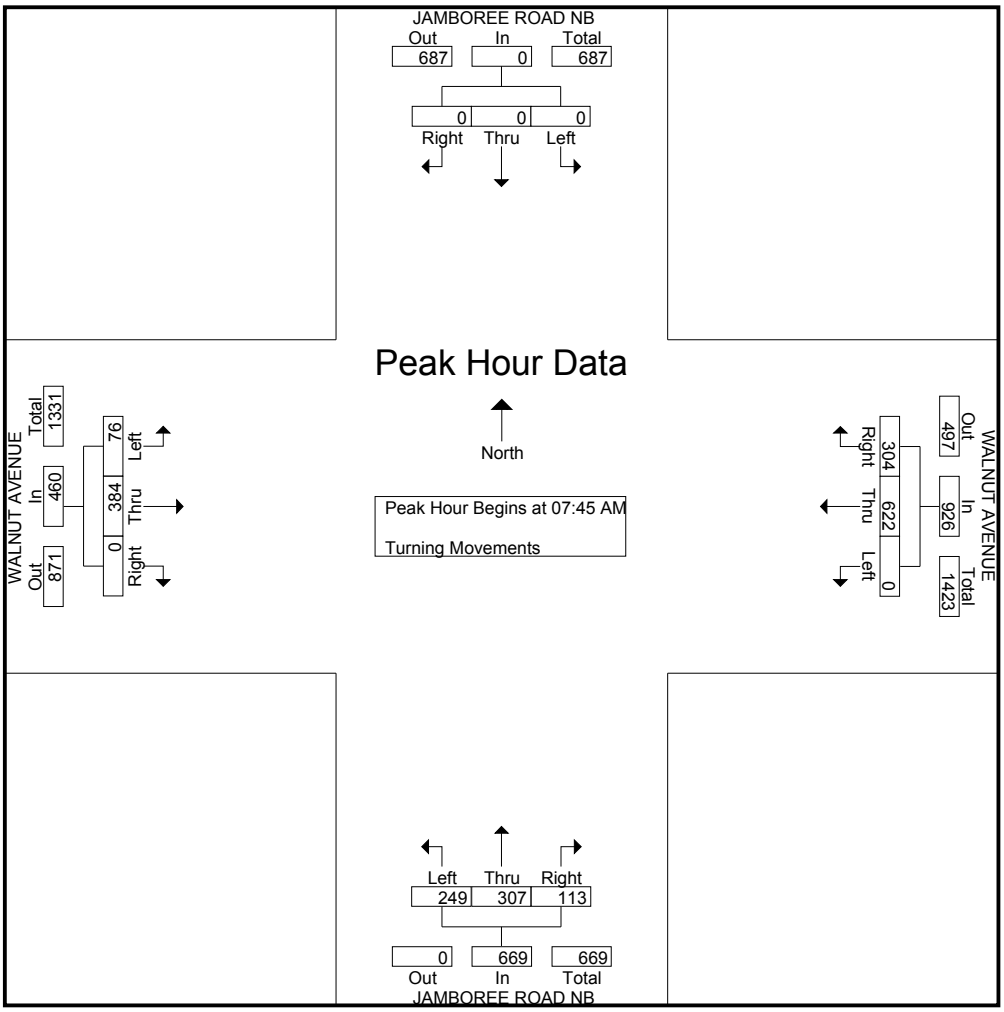
	JAMBOREE ROAD NB Southbound			WALNUT AVENUE Westbound			JAMBOREE ROAD NB Northbound			WALNUT AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	51	95	0	28	52	35	0	54	8	323
07:15 AM	0	0	0	51	108	0	22	51	44	0	62	11	349
07:30 AM	0	0	0	62	143	0	28	80	48	0	76	13	450
07:45 AM	0	0	0	66	168	0	28	94	68	0	91	14	529
Total	0	0	0	230	514	0	106	277	195	0	283	46	1651
08:00 AM	0	0	0	76	141	0	33	73	62	0	117	23	525
08:15 AM	0	0	0	67	148	0	32	73	56	0	86	18	480
08:30 AM	0	0	0	95	165	0	20	67	63	0	90	21	521
08:45 AM	0	0	0	81	163	0	39	76	56	0	96	18	529
Total	0	0	0	319	617	0	124	289	237	0	389	80	2055
*** BREAK ***													
04:00 PM	0	0	0	74	143	0	58	100	57	0	124	77	633
04:15 PM	0	0	0	72	159	0	68	106	54	0	107	42	608
04:30 PM	0	0	0	68	201	0	69	130	75	0	128	45	716
04:45 PM	0	0	0	76	170	0	71	125	62	0	122	94	720
Total	0	0	0	290	673	0	266	461	248	0	481	258	2677
05:00 PM	0	0	0	101	204	0	82	141	76	0	148	95	847
05:15 PM	0	0	0	84	194	0	89	143	74	0	161	71	816
05:30 PM	0	0	0	92	209	0	104	139	80	0	169	65	858
05:45 PM	0	0	0	102	224	0	102	123	78	0	155	73	857
Total	0	0	0	379	831	0	377	546	308	0	633	304	3378
Grand Total	0	0	0	1218	2635	0	873	1573	988	0	1786	688	9761
Apprch %	0	0	0	31.6	68.4	0	25.4	45.8	28.8	0	72.2	27.8	
Total %	0	0	0	12.5	27	0	8.9	16.1	10.1	0	18.3	7	

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

City: IRVINE
N-S Direction: JAMBOREE ROAD NB
E-W Direction: WALNUT AVENUE

File Name : H1404044
Site Code : 132
Start Date : 6/10/2014
Page No : 2

	JAMBOREE ROAD NB Southbound				WALNUT AVENUE Westbound				JAMBOREE ROAD NB Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	66	**168**	0	234	28	**94**	**68**	**190**	0	91	14	105	**529**
08:00 AM	0	0	0	0	76	141	0	217	**33**	73	62	168	0	**117**	**23**	**140**	525
08:15 AM	0	0	0	0	67	148	0	215	32	73	56	161	0	86	18	104	480
08:30 AM	0	0	0	0	**95**	165	0	**260**	20	67	63	150	0	90	21	111	521
Total Volume	0	0	0	0	304	622	0	926	113	307	249	669	0	384	76	460	2055
% App. Total	0	0	0		32.8	67.2	0		16.9	45.9	37.2		0	83.5	16.5		
PHF	.000	.000	.000	.000	.800	.926	.000	.890	.856	.816	.915	.880	.000	.821	.826	.821	.971

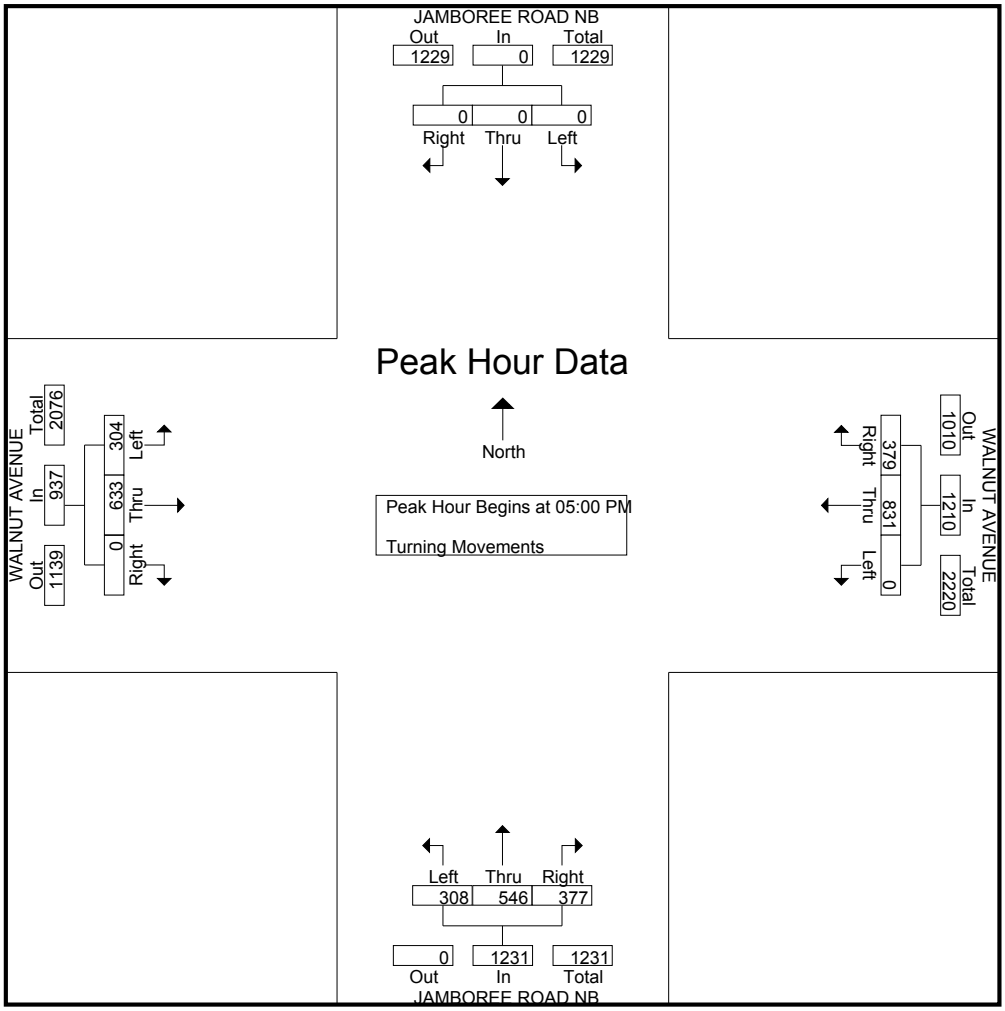


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: JAMBOREE ROAD NB
E-W Direction: WALNUT AVENUE

File Name : H1404044
Site Code : 132
Start Date : 6/10/2014
Page No : 3

	JAMBOREE ROAD NB Southbound				WALNUT AVENUE Westbound				JAMBOREE ROAD NB Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	101	204	0	305	82	141	76	299	0	148	**95**	**243**	847
05:15 PM	0	0	0	0	84	194	0	278	89	**143**	74	306	0	161	71	232	816
05:30 PM	0	0	0	0	92	209	0	301	**104**	139	**80**	**323**	0	**169**	65	234	**858**
05:45 PM	0	0	0	0	**102**	**224**	0	**326**	102	123	78	303	0	155	73	228	857
Total Volume	0	0	0	0	379	831	0	1210	377	546	308	1231	0	633	304	937	3378
% App. Total	0	0	0		31.3	68.7	0		30.6	44.4	25		0	67.6	32.4		
PHF	.000	.000	.000	.000	.929	.927	.000	.928	.906	.955	.963	.953	.000	.936	.800	.964	.984



City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: WALNUT AVENUE

File Name : H1405096
Site Code : 00005163
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

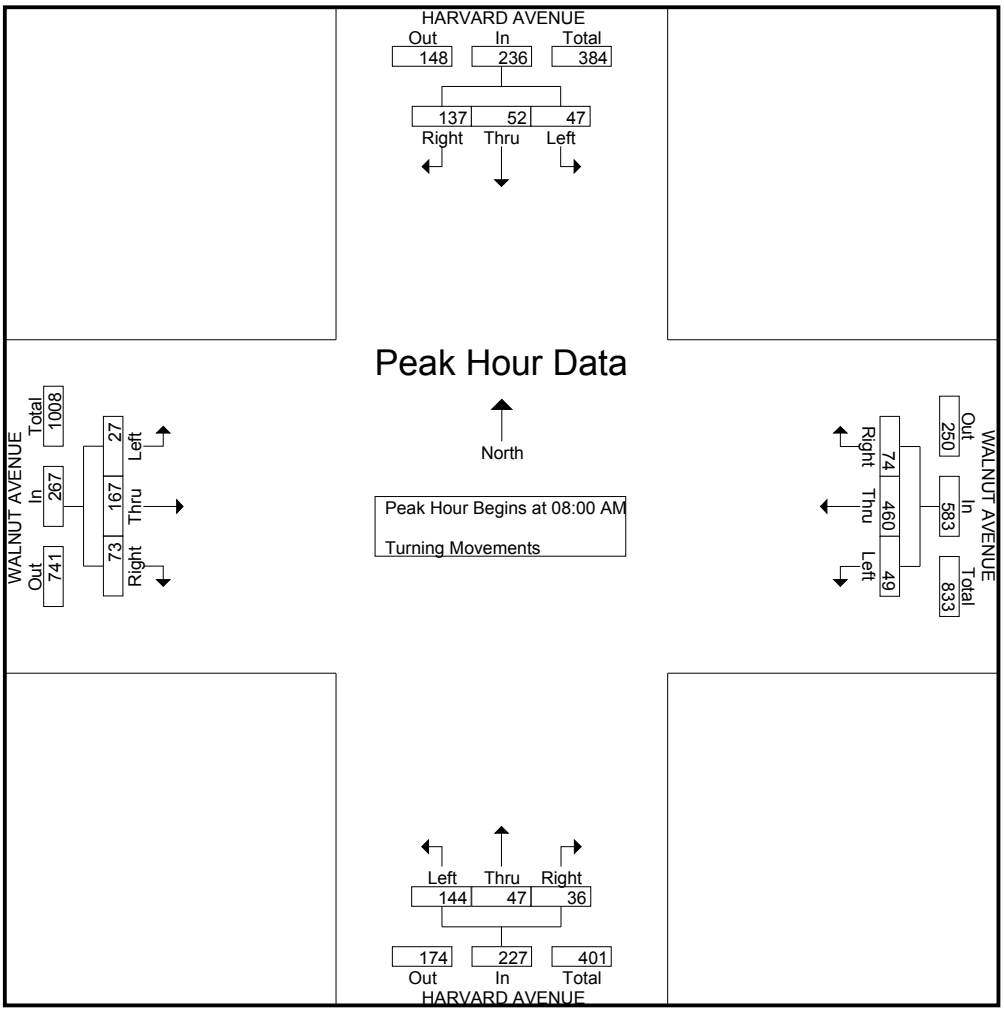
	HARVARD AVENUE Southbound			WALNUT AVENUE Westbound			HARVARD AVENUE Northbound			WALNUT AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	22	3	6	11	84	4	7	11	18	5	33	4	208
07:15 AM	29	6	1	11	96	10	6	3	31	16	32	7	248
07:30 AM	31	4	6	14	116	8	10	4	39	17	27	4	280
07:45 AM	32	13	9	16	130	15	7	6	36	19	25	2	310
Total	114	26	22	52	426	37	30	24	124	57	117	17	1046
08:00 AM	34	11	6	24	114	17	12	7	28	12	37	8	310
08:15 AM	33	10	14	19	116	14	11	13	44	11	33	4	322
08:30 AM	23	20	13	17	114	9	9	15	31	19	45	7	322
08:45 AM	47	11	14	14	116	9	4	12	41	31	52	8	359
Total	137	52	47	74	460	49	36	47	144	73	167	27	1313
*** BREAK ***													
04:00 PM	11	13	27	4	117	19	22	8	34	34	100	21	410
04:15 PM	16	14	14	3	118	23	20	15	39	29	105	16	412
04:30 PM	12	6	12	7	114	20	16	7	39	39	91	16	379
04:45 PM	9	8	17	2	94	17	35	9	38	39	98	21	387
Total	48	41	70	16	443	79	93	39	150	141	394	74	1588
05:00 PM	7	11	17	4	101	30	37	8	38	49	111	25	438
05:15 PM	10	21	19	5	129	27	23	14	42	47	157	23	517
05:30 PM	6	8	18	7	123	26	37	12	54	58	153	29	531
05:45 PM	13	16	33	13	148	35	44	14	54	58	144	27	599
Total	36	56	87	29	501	118	141	48	188	212	565	104	2085
Grand Total	335	175	226	171	1830	283	300	158	606	483	1243	222	6032
Apprch %	45.5	23.8	30.7	7.5	80.1	12.4	28.2	14.8	57	24.8	63.8	11.4	
Total %	5.6	2.9	3.7	2.8	30.3	4.7	5	2.6	10	8	20.6	3.7	

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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: WALNUT AVENUE

File Name : H1405096
Site Code : 00005163
Start Date : 6/12/2014
Page No : 2

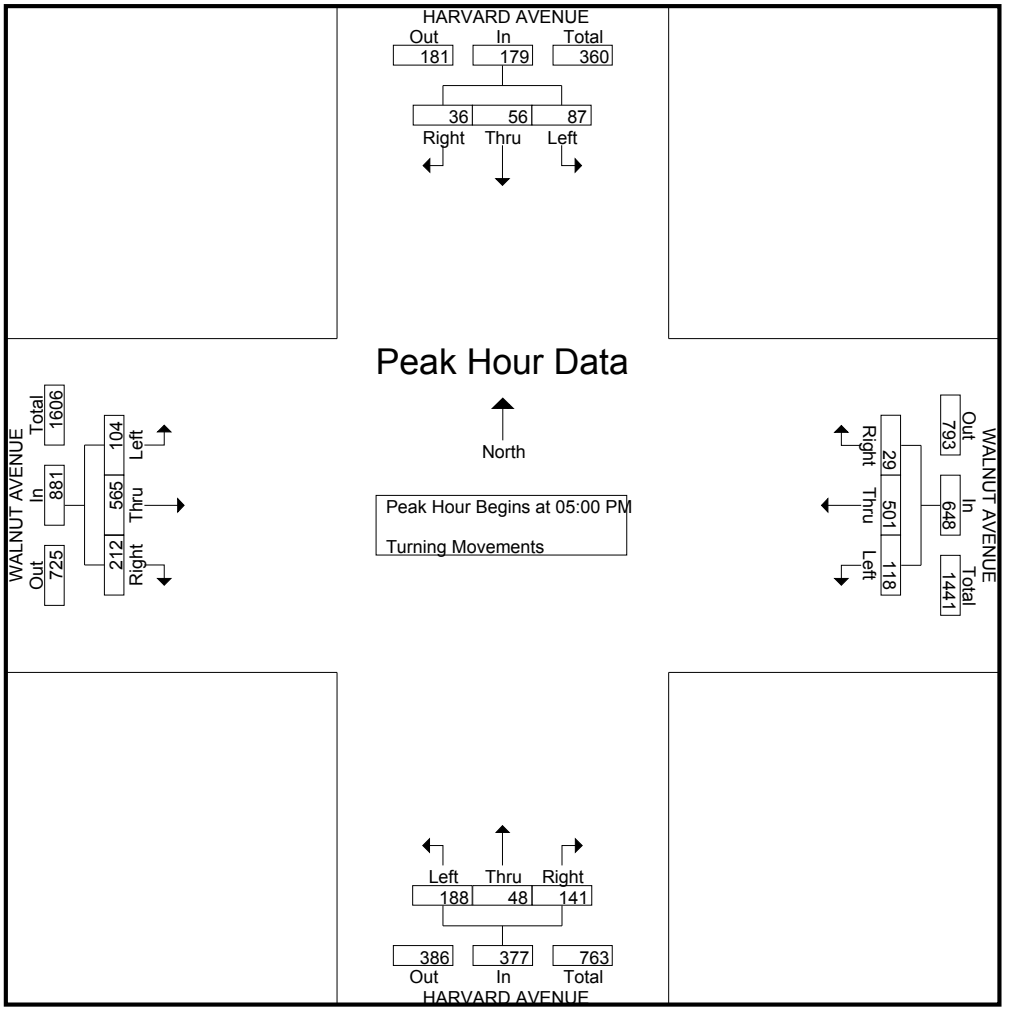
	HARVARD AVENUE Southbound				WALNUT AVENUE Westbound				HARVARD AVENUE Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	34	11	6	51	**24**	114	**17**	**155**	**12**	7	28	47	12	37	**8**	57	310
08:15 AM	33	10	**14**	57	19	**116**	14	149	11	13	**44**	**68**	11	33	4	48	322
08:30 AM	23	**20**	13	56	17	114	9	140	9	**15**	31	55	19	45	7	71	322
08:45 AM	**47**	11	14	**72**	14	116	9	139	4	12	41	57	**31**	**52**	8	**91**	**359**
Total Volume	137	52	47	236	74	460	49	583	36	47	144	227	73	167	27	267	1313
% App. Total	58.1	22	19.9		12.7	78.9	8.4		15.9	20.7	63.4		27.3	62.5	10.1		
PHF	.729	.650	.839	.819	.771	.991	.721	.940	.750	.783	.818	.835	.589	.803	.844	.734	.914



City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: WALNUT AVENUE

File Name : H1405096
Site Code : 00005163
Start Date : 6/12/2014
Page No : 3

	HARVARD AVENUE Southbound				WALNUT AVENUE Westbound				HARVARD AVENUE Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	7	11	17	35	4	101	30	135	37	8	38	83	49	111	25	185	438
05:15 PM	10	**21**	19	50	5	129	27	161	23	**14**	42	79	47	**157**	23	227	517
05:30 PM	6	8	18	32	7	123	26	156	37	12	**54**	103	**58**	153	**29**	**240**	531
05:45 PM	**13**	16	**33**	**62**	**13**	**148**	**35**	**196**	**44**	14	54	**112**	58	144	27	229	**599**
Total Volume	36	56	87	179	29	501	118	648	141	48	188	377	212	565	104	881	2085
% App. Total	20.1	31.3	48.6		4.5	77.3	18.2		37.4	12.7	49.9		24.1	64.1	11.8		
PHF	.692	.667	.659	.722	.558	.846	.843	.827	.801	.857	.870	.842	.914	.900	.897	.918	.870



City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: WALNUT AVENUE

File Name : H1404060
Site Code : 224
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

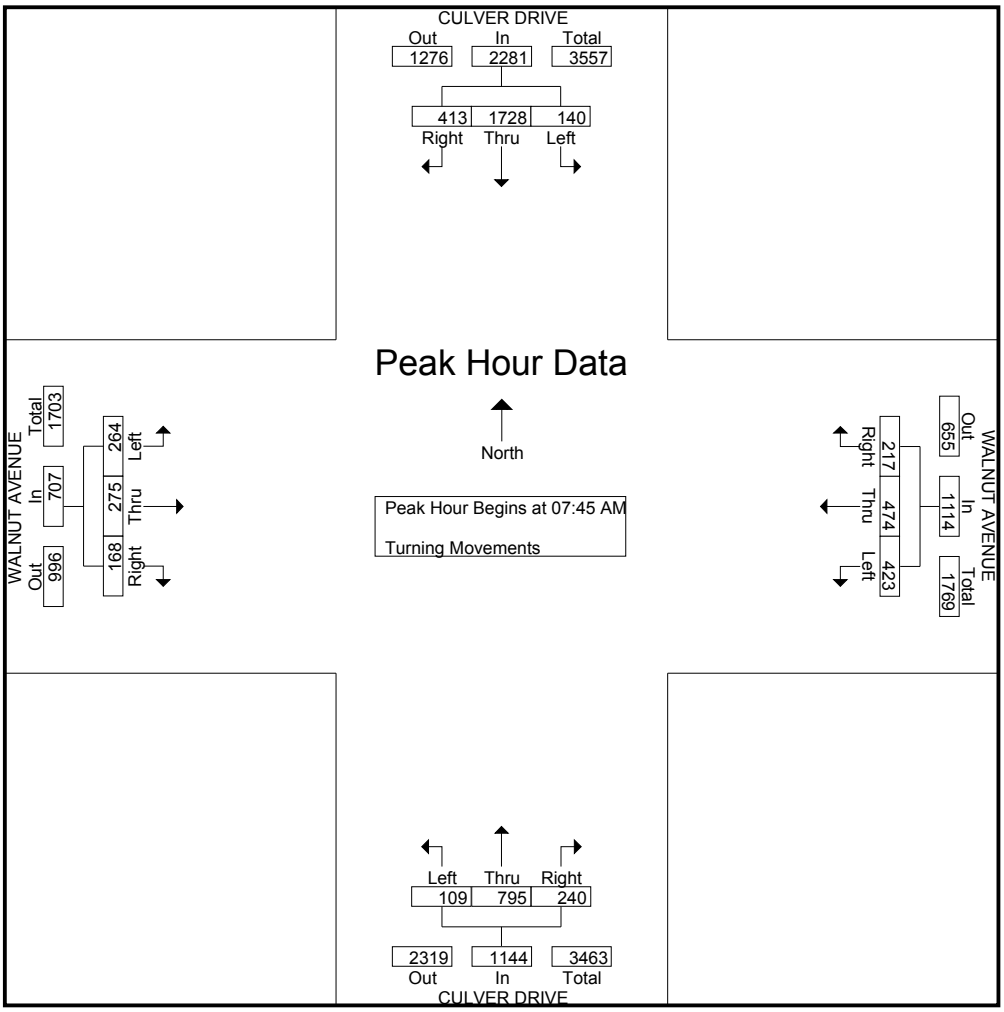
	CULVER DRIVE Southbound			WALNUT AVENUE Westbound			CULVER DRIVE Northbound			WALNUT AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	36	136	28	37	67	40	17	93	8	12	26	37	537
07:15 AM	62	213	28	49	72	56	25	139	8	10	26	43	731
07:30 AM	86	321	35	52	91	67	55	172	23	33	101	59	1095
07:45 AM	130	434	43	59	127	121	120	190	27	37	141	75	1504
Total	314	1104	134	197	357	284	217	594	66	92	294	214	3867
08:00 AM	88	462	29	75	155	138	32	189	25	57	50	70	1370
08:15 AM	84	416	38	47	86	79	52	200	31	50	43	69	1195
08:30 AM	111	416	30	36	106	85	36	216	26	24	41	50	1177
08:45 AM	74	377	39	44	75	62	33	175	26	17	43	59	1024
Total	357	1671	136	202	422	364	153	780	108	148	177	248	4766
*** BREAK ***													
04:00 PM	41	278	63	44	152	90	61	275	33	21	76	72	1206
04:15 PM	54	253	57	33	132	68	59	313	51	15	81	80	1196
04:30 PM	54	248	42	44	130	85	51	290	39	28	87	80	1178
04:45 PM	70	285	78	47	128	72	62	345	53	35	93	95	1363
Total	219	1064	240	168	542	315	233	1223	176	99	337	327	4943
05:00 PM	59	287	69	50	126	74	97	394	49	38	80	102	1425
05:15 PM	60	313	59	44	124	105	90	411	45	41	110	112	1514
05:30 PM	66	327	65	34	124	105	97	436	51	29	110	109	1553
05:45 PM	85	327	75	55	137	80	102	373	50	25	131	104	1544
Total	270	1254	268	183	511	364	386	1614	195	133	431	427	6036
Grand Total	1160	5093	778	750	1832	1327	989	4211	545	472	1239	1216	19612
Apprch %	16.5	72.4	11.1	19.2	46.9	33.9	17.2	73.3	9.5	16.1	42.3	41.5	
Total %	5.9	26	4	3.8	9.3	6.8	5	21.5	2.8	2.4	6.3	6.2	

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

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: WALNUT AVENUE

File Name : H1404060
Site Code : 224
Start Date : 6/12/2014
Page No : 2

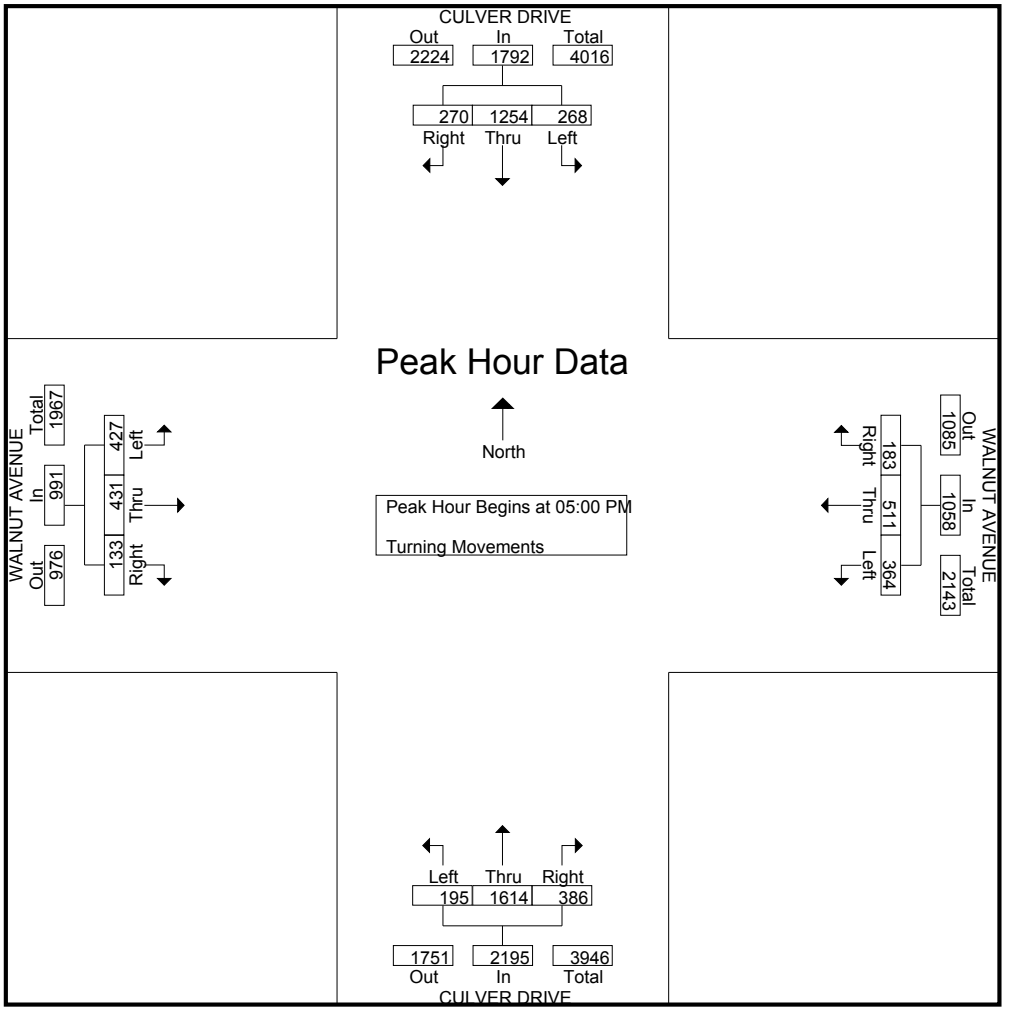
	CULVER DRIVE Southbound				WALNUT AVENUE Westbound				CULVER DRIVE Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**130**	434	**43**	**607**	59	127	121	307	**120**	190	27	**337**	37	**141**	**75**	**253**	**1504**
08:00 AM	88	**462**	29	579	**75**	**155**	**138**	**368**	32	189	25	246	**57**	50	70	177	1370
08:15 AM	84	416	38	538	47	86	79	212	52	200	**31**	283	50	43	69	162	1195
08:30 AM	111	416	30	557	36	106	85	227	36	**216**	26	278	24	41	50	115	1177
Total Volume	413	1728	140	2281	217	474	423	1114	240	795	109	1144	168	275	264	707	5246
% App. Total	18.1	75.8	6.1		19.5	42.5	38		21	69.5	9.5		23.8	38.9	37.3		
PHF	.794	.935	.814	.939	.723	.765	.766	.757	.500	.920	.879	.849	.737	.488	.880	.699	.872



City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: WALNUT AVENUE

File Name : H1404060
Site Code : 224
Start Date : 6/12/2014
Page No : 3

	CULVER DRIVE Southbound				WALNUT AVENUE Westbound				CULVER DRIVE Northbound				WALNUT AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	59	287	69	415	50	126	74	250	97	394	49	540	38	80	102	220	1425
05:15 PM	60	313	59	432	44	124	**105**	**273**	90	411	45	546	**41**	110	**112**	**263**	1514
05:30 PM	66	**327**	65	458	34	124	105	263	97	**436**	**51**	**584**	29	110	109	248	**1553**
05:45 PM	**85**	327	**75**	**487**	**55**	**137**	80	272	**102**	373	50	525	25	**131**	104	260	1544
Total Volume	270	1254	268	1792	183	511	364	1058	386	1614	195	2195	133	431	427	991	6036
% App. Total	15.1	70	15		17.3	48.3	34.4		17.6	73.5	8.9		13.4	43.5	43.1		
PHF	.794	.959	.893	.920	.832	.932	.867	.969	.946	.925	.956	.940	.811	.823	.953	.942	.972



City: TUSTIN
N-S Direction: NEWPORT AVENUE
E-W Direction: SR-55 NB RAMPS

File Name : h1405075
Site Code : 00000000
Start Date : 6/11/2014
Page No : 1

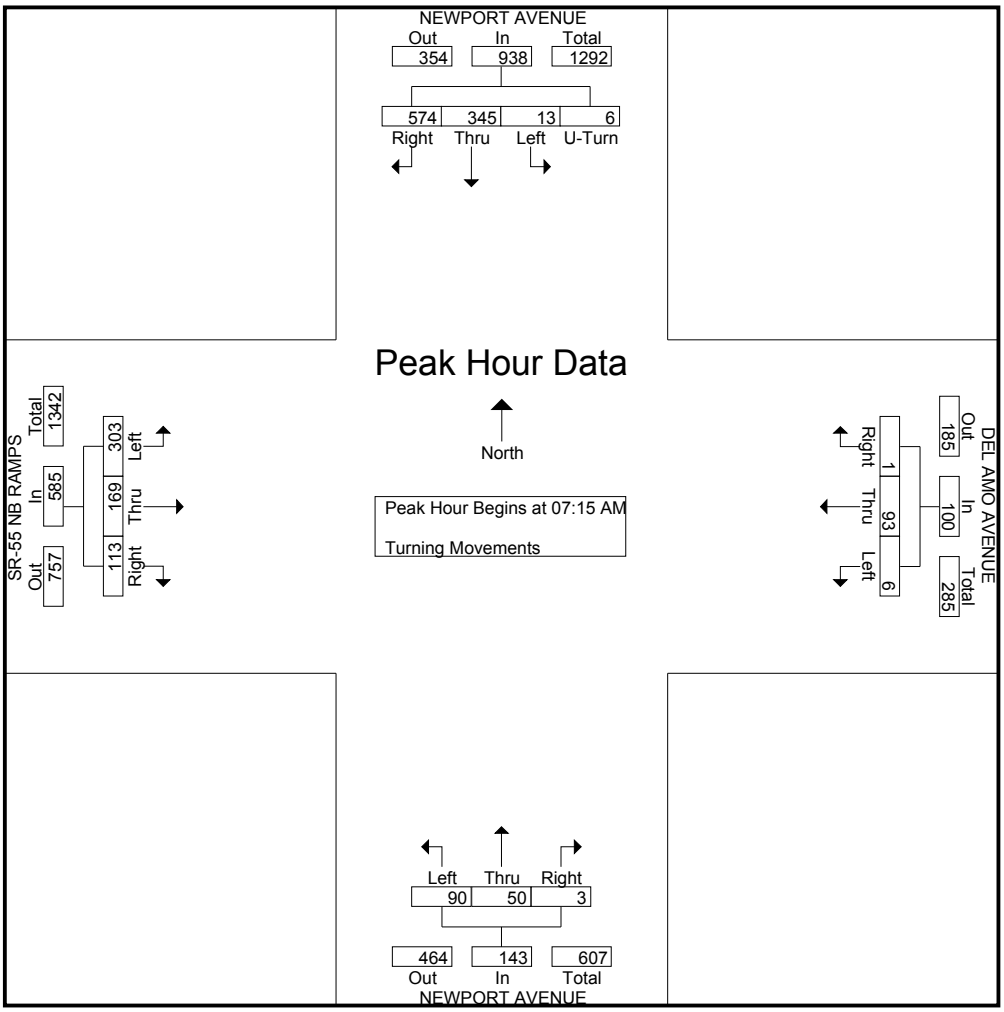
Groups Printed- Turning Movements

	NEWPORT AVENUE Southbound				DEL AMO AVENUE Westbound			NEWPORT AVENUE Northbound			SR-55 NB RAMPS Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	136	85	1	0	0	12	3	2	11	19	17	33	85	404
07:15 AM	148	90	3	1	0	17	3	1	10	18	32	45	72	440
07:30 AM	157	76	2	3	0	20	2	0	12	29	26	50	80	457
07:45 AM	131	95	5	0	0	39	1	1	10	21	26	43	76	448
Total	572	346	11	4	0	88	9	4	43	87	101	171	313	1749
08:00 AM	138	84	3	2	1	17	0	1	18	22	29	31	75	421
08:15 AM	148	70	2	0	0	31	1	1	7	27	29	50	57	423
08:30 AM	156	44	0	0	1	26	0	1	9	45	30	37	62	411
08:45 AM	134	47	2	0	1	19	0	1	11	21	22	41	76	375
Total	576	245	7	2	3	93	1	4	45	115	110	159	270	1630
*** BREAK ***														
04:00 PM	132	19	0	2	3	118	6	8	30	147	6	7	24	502
04:15 PM	115	17	1	0	4	128	3	5	32	122	2	5	17	451
04:30 PM	90	20	2	0	2	115	0	5	55	183	4	2	21	499
04:45 PM	128	15	0	1	3	103	1	7	43	126	0	4	21	452
Total	465	71	3	3	12	464	10	25	160	578	12	18	83	1904
05:00 PM	86	21	1	1	4	147	1	19	85	176	1	9	21	572
05:15 PM	82	21	3	2	4	122	1	9	42	186	1	8	13	494
05:30 PM	103	12	1	0	4	104	0	9	44	161	2	11	24	475
05:45 PM	107	25	1	1	3	101	2	4	31	156	4	5	18	458
Total	378	79	6	4	15	474	4	41	202	679	8	33	76	1999
Grand Total	1991	741	27	13	30	1119	24	74	450	1459	231	381	742	7282
Apprch %	71.8	26.7	1	0.5	2.6	95.4	2	3.7	22.7	73.6	17.1	28.1	54.8	
Total %	27.3	10.2	0.4	0.2	0.4	15.4	0.3	1	6.2	20	3.2	5.2	10.2	

City: TUSTIN
N-S Direction: NEWPORT AVENUE
E-W Direction: SR-55 NB RAMPS

File Name : h1405075
Site Code : 00000000
Start Date : 6/11/2014
Page No : 2

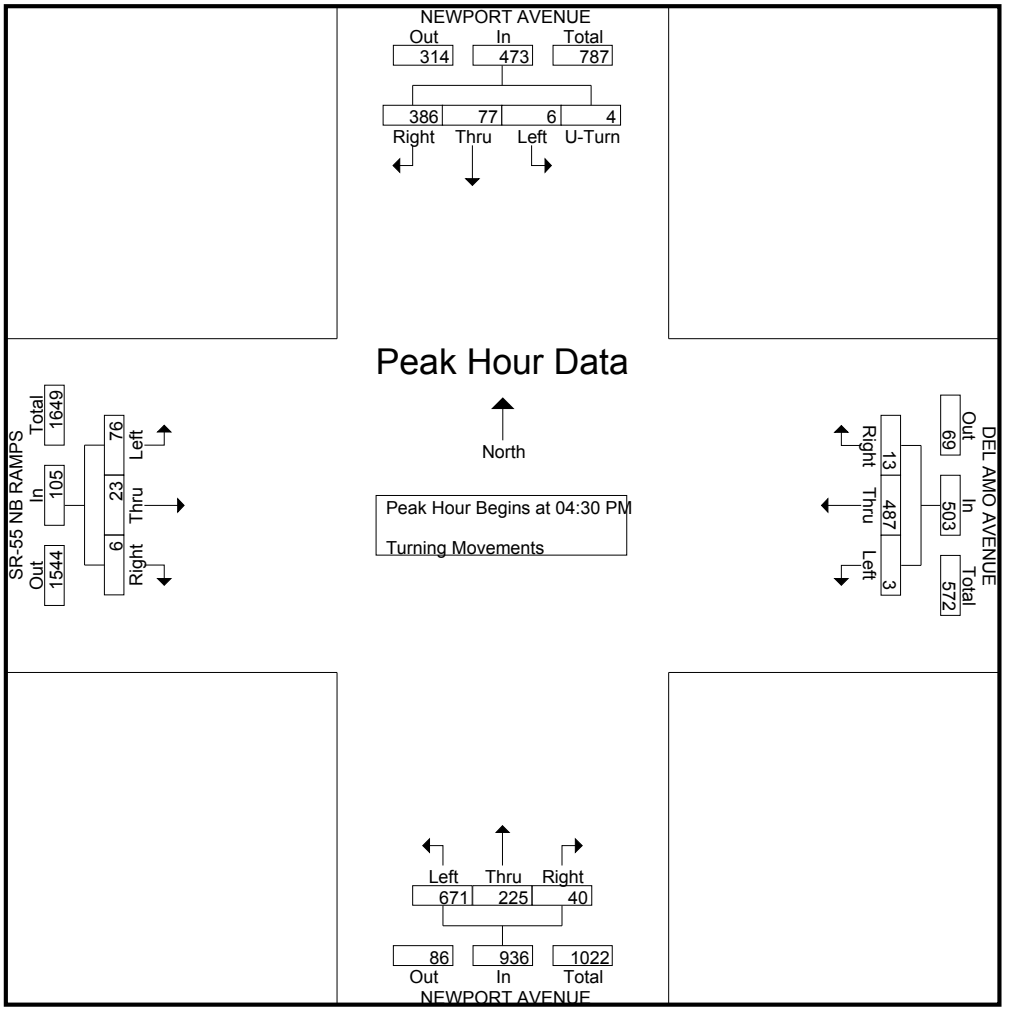
	NEWPORT AVENUE Southbound					DEL AMO AVENUE Westbound				NEWPORT AVENUE Northbound				SR-55 NB RAMPS Eastbound				
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	148	90	3	1	**242**	0	17	**3**	20	**1**	10	18	29	**32**	45	72	149	440
07:30 AM	**157**	76	2	**3**	238	0	20	2	22	0	12	**29**	**41**	26	**50**	**80**	**156**	**457**
07:45 AM	131	**95**	**5**	0	231	0	**39**	1	**40**	1	10	21	32	26	43	76	145	448
08:00 AM	138	84	3	2	227	**1**	17	0	18	1	**18**	22	41	29	31	75	135	421
Total Volume	574	345	13	6	938	1	93	6	100	3	50	90	143	113	169	303	585	1766
% App. Total	61.2	36.8	1.4	0.6		1	93	6		2.1	35	62.9		19.3	28.9	51.8		
PHF	.914	.908	.650	.500	.969	.250	.596	.500	.625	.750	.694	.776	.872	.883	.845	.947	.938	.966



City: TUSTIN
N-S Direction: NEWPORT AVENUE
E-W Direction: SR-55 NB RAMPS

File Name : h1405075
Site Code : 00000000
Start Date : 6/11/2014
Page No : 3

	NEWPORT AVENUE Southbound					DEL AMO AVENUE Westbound				NEWPORT AVENUE Northbound				SR-55 NB RAMPS Eastbound				
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	90	20	2	0	112	2	115	0	117	5	55	183	243	**4**	2	**21**	27	499
04:45 PM	**128**	15	0	1	**144**	3	103	**1**	107	7	43	126	176	0	4	21	25	452
05:00 PM	86	**21**	1	1	109	**4**	**147**	1	**152**	**19**	**85**	176	**280**	1	**9**	21	**31**	**572**
05:15 PM	82	21	**3**	**2**	108	4	122	1	127	9	42	**186**	237	1	8	13	22	494
Total Volume	386	77	6	4	473	13	487	3	503	40	225	671	936	6	23	76	105	2017
% App. Total	81.6	16.3	1.3	0.8		2.6	96.8	0.6		4.3	24	71.7		5.7	21.9	72.4		
PHF	.754	.917	.500	.500	.821	.813	.828	.750	.827	.526	.662	.902	.836	.375	.639	.905	.847	.882



City: SANTA ANA
N-S Direction: SR-55 SB RAMPS
E-W Direction: EDINGER AVENUE

File Name : H1405074
Site Code : 00000000
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

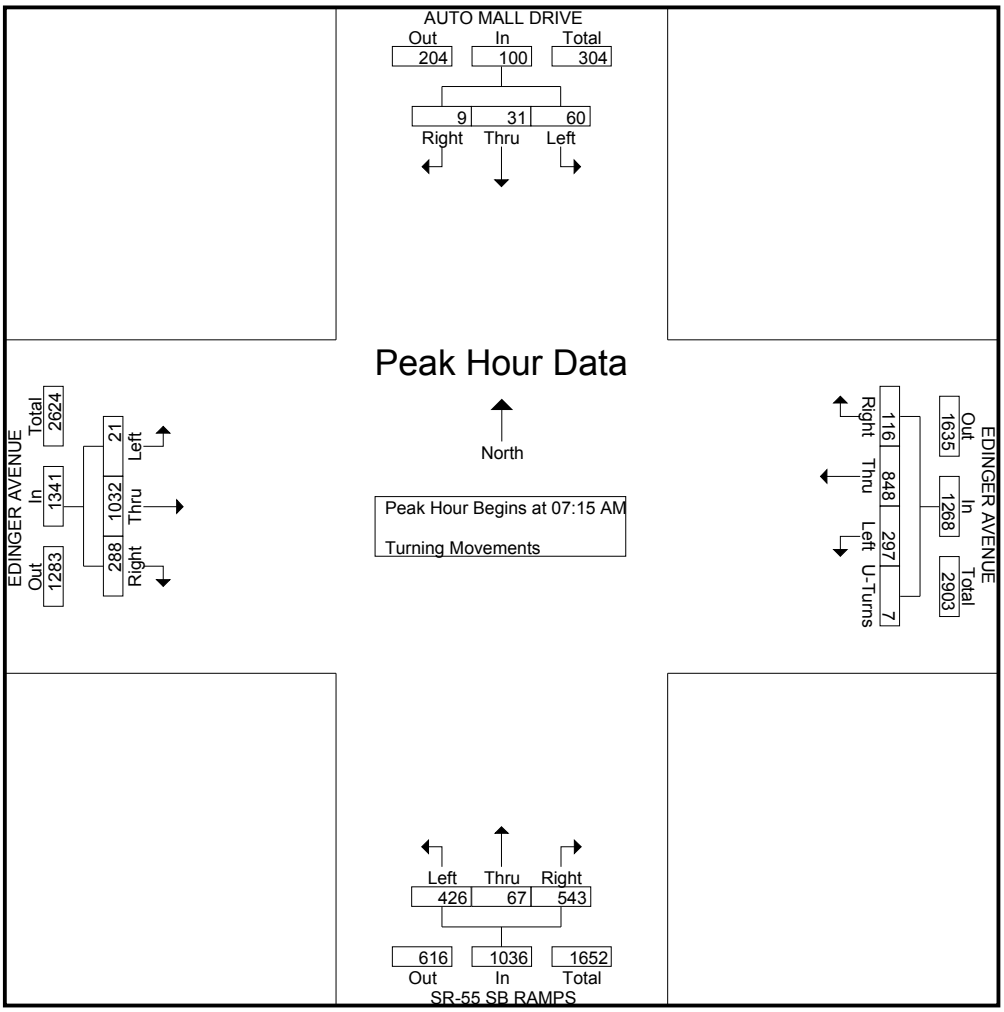
	AUTO MALL DRIVE Southbound			EDINGER AVENUE Westbound				SR-55 SB RAMPS Northbound			EDINGER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turns	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	3	7	23	182	55	0	119	22	123	70	239	6	850
07:15 AM	2	7	12	24	172	59	2	132	11	118	72	254	6	871
07:30 AM	2	6	17	32	230	81	1	150	12	114	82	250	5	982
07:45 AM	2	10	11	28	239	76	1	129	25	113	72	224	4	934
Total	7	26	47	107	823	271	4	530	70	468	296	967	21	3637
08:00 AM	3	8	20	32	207	81	3	132	19	81	62	304	6	958
08:15 AM	3	7	15	21	184	66	0	103	15	90	52	287	8	851
08:30 AM	10	7	12	27	202	83	0	86	20	85	56	299	5	892
08:45 AM	5	9	14	29	198	88	1	87	15	75	60	267	10	858
Total	21	31	61	109	791	318	4	408	69	331	230	1157	29	3559
*** BREAK ***														
04:00 PM	8	31	17	16	273	74	4	59	17	101	81	305	6	992
04:15 PM	11	10	22	17	226	72	2	58	12	95	76	258	6	865
04:30 PM	12	15	29	17	277	83	3	62	7	79	83	306	9	982
04:45 PM	8	14	23	23	230	75	4	49	11	106	64	259	6	872
Total	39	70	91	73	1006	304	13	228	47	381	304	1128	27	3711
05:00 PM	6	19	26	25	288	104	1	71	8	74	82	319	8	1031
05:15 PM	10	14	27	28	249	91	4	74	7	66	76	266	10	922
05:30 PM	8	13	18	18	230	91	1	58	3	61	65	277	12	855
05:45 PM	8	9	31	10	230	70	2	89	7	65	39	245	8	813
Total	32	55	102	81	997	356	8	292	25	266	262	1107	38	3621
Grand Total	99	182	301	370	3617	1249	29	1458	211	1446	1092	4359	115	14528
Apprch %	17	31.3	51.7	7	68.7	23.7	0.6	46.8	6.8	46.4	19.6	78.3	2.1	
Total %	0.7	1.3	2.1	2.5	24.9	8.6	0.2	10	1.5	10	7.5	30	0.8	

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

City: SANTA ANA
N-S Direction: SR-55 SB RAMPS
E-W Direction: EDINGER AVENUE

File Name : H1405074
Site Code : 00000000
Start Date : 6/12/2014
Page No : 2

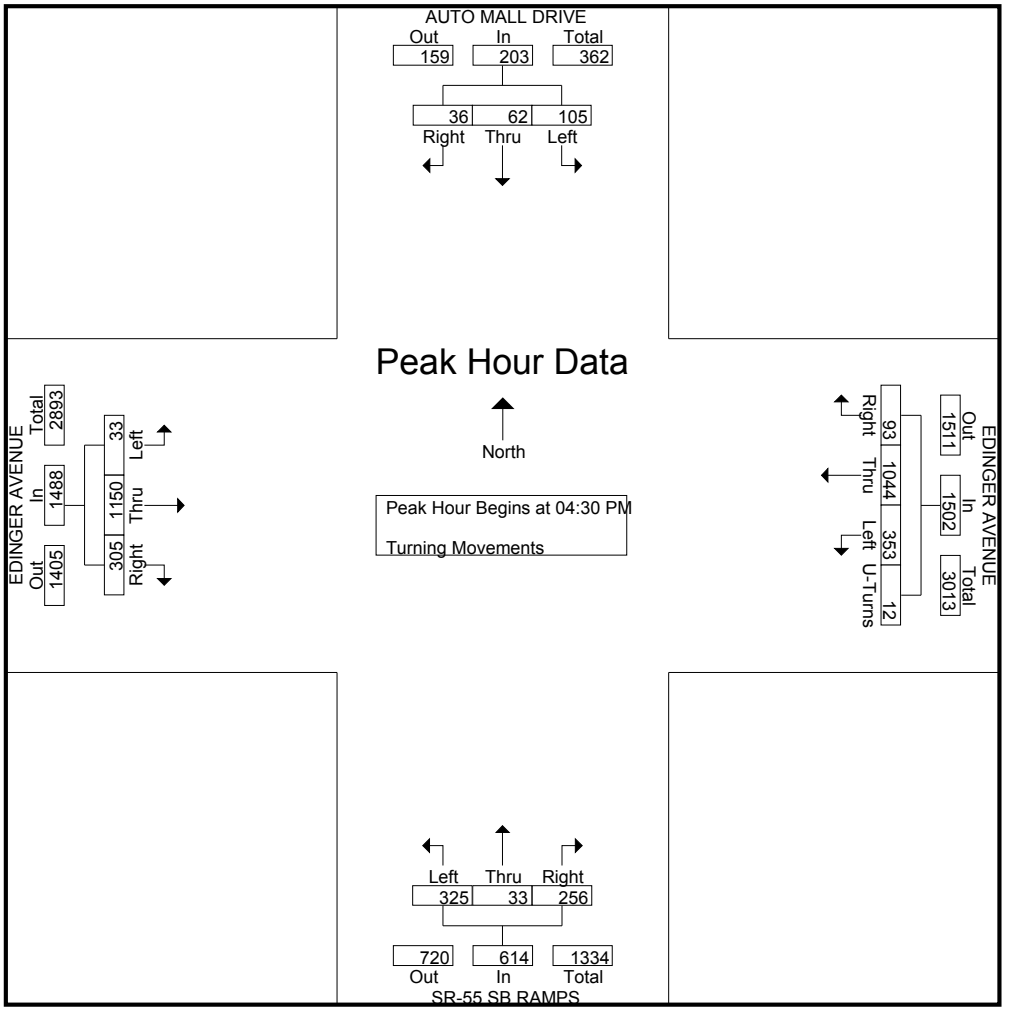
	AUTO MALL DRIVE Southbound				EDINGER AVENUE Westbound					SR-55 SB RAMPS Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	2	7	12	21	24	172	59	2	257	132	11	**118**	261	72	254	**6**	332	871
07:30 AM	2	6	17	25	**32**	230	**81**	1	**344**	**150**	12	114	**276**	**82**	250	5	337	**982**
07:45 AM	2	**10**	11	23	28	**239**	76	1	344	129	**25**	113	267	72	224	4	300	934
08:00 AM	**3**	8	**20**	**31**	32	207	81	**3**	323	132	19	81	232	62	**304**	6	**372**	958
Total Volume	9	31	60	100	116	848	297	7	1268	543	67	426	1036	288	1032	21	1341	3745
% App. Total	9	31	60		9.1	66.9	23.4	0.6		52.4	6.5	41.1		21.5	77	1.6		
PHF	.750	.775	.750	.806	.906	.887	.917	.583	.922	.905	.670	.903	.938	.878	.849	.875	.901	.953



City: SANTA ANA
N-S Direction: SR-55 SB RAMPS
E-W Direction: EDINGER AVENUE

File Name : H1405074
Site Code : 00000000
Start Date : 6/12/2014
Page No : 3

	AUTO MALL DRIVE Southbound				EDINGER AVENUE Westbound					SR-55 SB RAMPS Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	**12**	15	**29**	**56**	17	277	83	3	380	62	7	79	148	**83**	306	9	398	982
04:45 PM	8	14	23	45	23	230	75	**4**	332	49	**11**	**106**	**166**	64	259	6	329	872
05:00 PM	6	**19**	26	51	25	**288**	**104**	1	**418**	71	8	74	153	82	**319**	8	**409**	**1031**
05:15 PM	10	14	27	51	**28**	249	91	4	372	**74**	7	66	147	76	266	**10**	352	922
Total Volume	36	62	105	203	93	1044	353	12	1502	256	33	325	614	305	1150	33	1488	3807
% App. Total	17.7	30.5	51.7		6.2	69.5	23.5	0.8		41.7	5.4	52.9		20.5	77.3	2.2		
PHF	.750	.816	.905	.906	.830	.906	.849	.750	.898	.865	.750	.767	.925	.919	.901	.825	.910	.923



City: TUSTIN
N-S Direction: NEWPORT AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405076
Site Code : 00000000
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

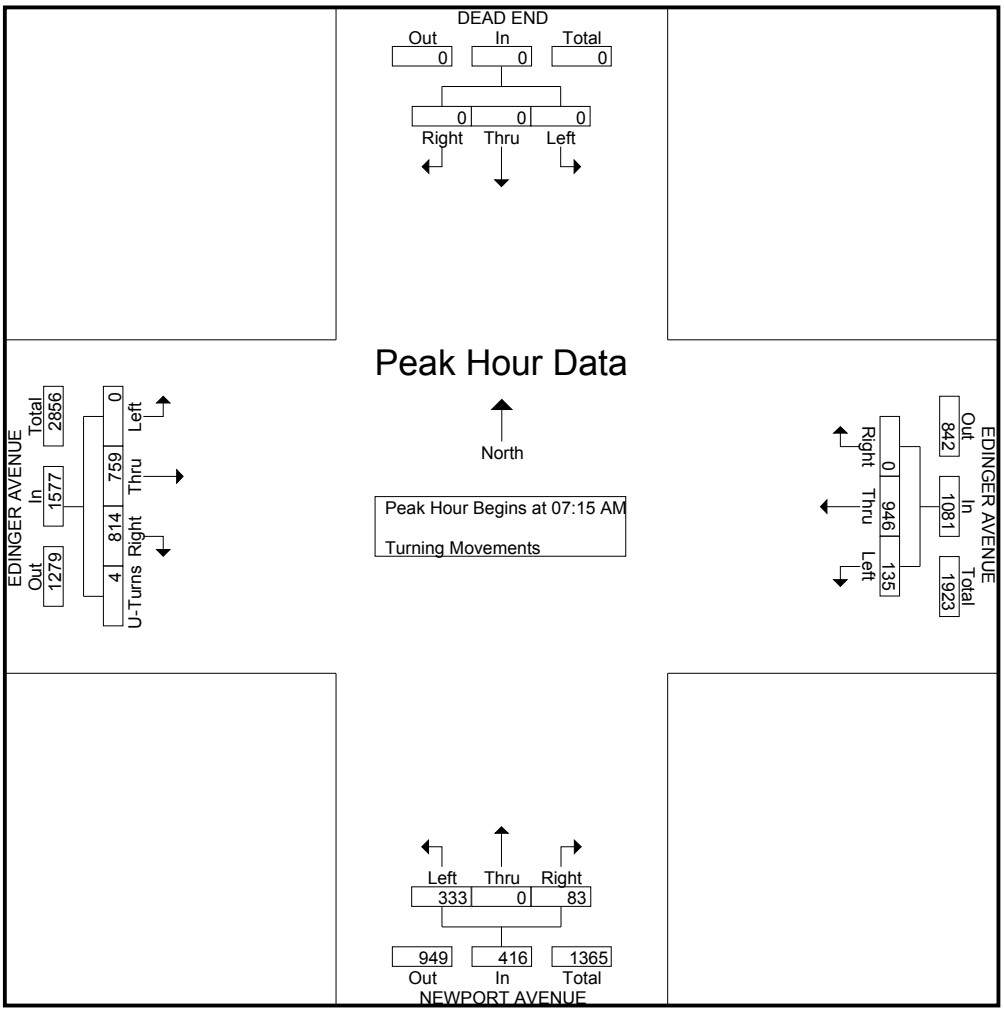
	DEAD END Southbound			EDINGER AVENUE Westbound			NEWPORT AVENUE Northbound			EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turns	Int. Total
07:00 AM	0	0	0	0	164	21	10	0	98	213	161	0	1	668
07:15 AM	0	0	0	0	198	39	24	0	70	213	182	0	1	727
07:30 AM	0	0	0	0	258	28	22	0	82	215	201	0	2	808
07:45 AM	0	0	0	0	256	28	17	0	88	185	192	0	0	766
Total	0	0	0	0	876	116	73	0	338	826	736	0	4	2969
08:00 AM	0	0	0	0	234	40	20	0	93	201	184	0	1	773
08:15 AM	0	0	0	0	212	42	12	0	64	167	180	0	1	678
08:30 AM	0	0	0	0	235	35	14	0	69	173	152	0	1	679
08:45 AM	0	0	0	0	224	38	12	0	75	440	150	0	3	942
Total	0	0	0	0	905	155	58	0	301	981	666	0	6	3072
*** BREAK ***														
04:00 PM	0	0	0	0	274	25	10	0	54	155	220	0	2	740
04:15 PM	0	0	0	0	268	17	11	0	38	111	243	0	1	689
04:30 PM	0	0	0	0	306	16	12	0	80	123	281	0	2	820
04:45 PM	0	0	0	0	291	36	7	0	60	116	201	0	1	712
Total	0	0	0	0	1139	94	40	0	232	505	945	0	6	2961
05:00 PM	0	0	0	0	307	27	19	0	106	89	317	0	1	866
05:15 PM	0	0	0	0	285	21	19	0	58	78	309	0	2	772
05:30 PM	0	0	0	0	287	21	12	0	57	88	270	0	2	737
05:45 PM	0	0	0	0	263	15	20	0	52	95	259	0	2	706
Total	0	0	0	0	1142	84	70	0	273	350	1155	0	7	3081
Grand Total	0	0	0	0	4062	449	241	0	1144	2662	3502	0	23	12083
Apprch %	0	0	0	0	90	10	17.4	0	82.6	43	56.6	0	0.4	
Total %	0	0	0	0	33.6	3.7	2	0	9.5	22	29	0	0.2	

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

City: TUSTIN
N-S Direction: NEWPORT AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405076
Site Code : 00000000
Start Date : 6/12/2014
Page No : 2

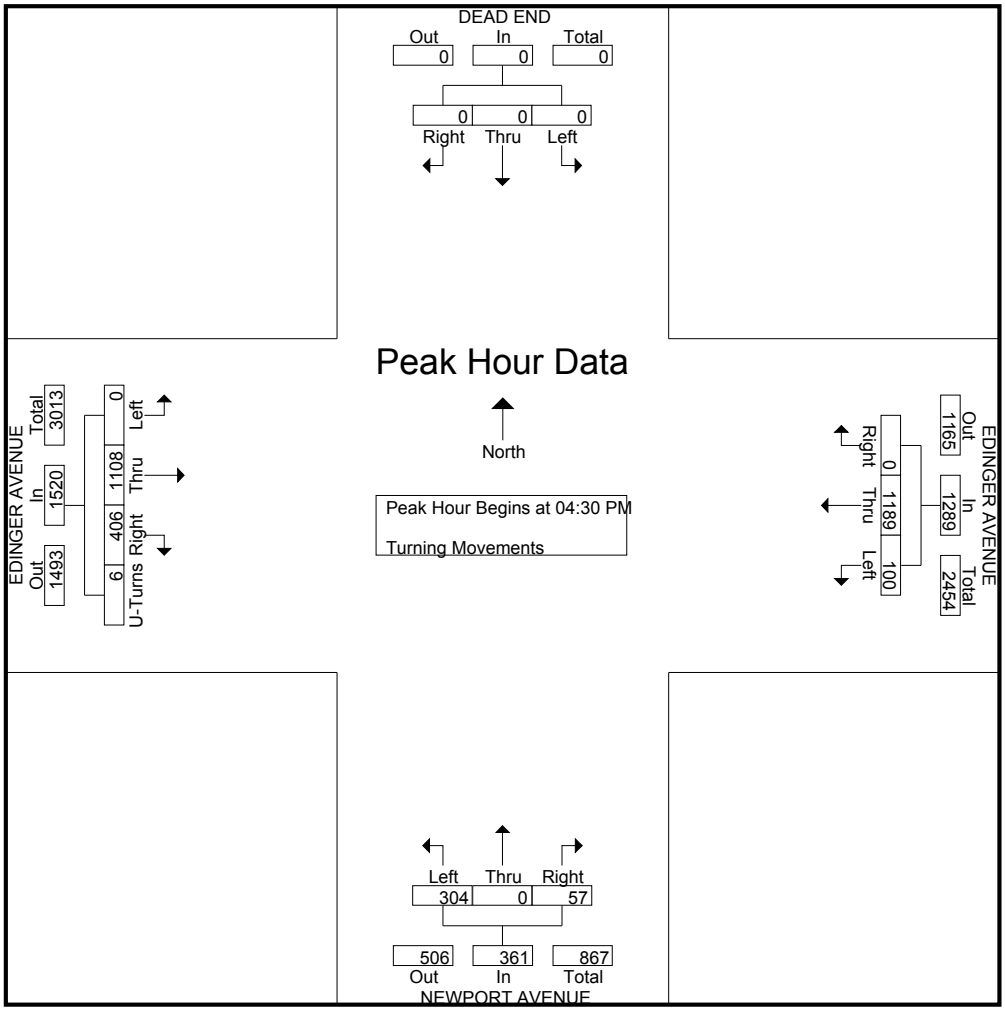
	DEAD END Southbound				EDINGER AVENUE Westbound				NEWPORT AVENUE Northbound				EDINGER AVENUE Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	0	0	0	0	0	198	39	237	**24**	0	70	94	213	182	0	1	396	727
07:30 AM	0	0	0	0	0	**258**	28	**286**	22	0	82	104	**215**	**201**	0	**2**	**418**	**808**
07:45 AM	0	0	0	0	0	256	28	284	17	0	88	105	185	192	0	0	377	766
08:00 AM	0	0	0	0	0	234	**40**	274	20	0	**93**	**113**	201	184	0	1	386	773
Total Volume	0	0	0	0	0	946	135	1081	83	0	333	416	814	759	0	4	1577	3074
% App. Total	0	0	0		0	87.5	12.5		20	0	80		51.6	48.1	0	0.3		
PHF	.000	.000	.000	.000	.000	.917	.844	.945	.865	.000	.895	.920	.947	.944	.000	.500	.943	.951



City: TUSTIN
N-S Direction: NEWPORT AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405076
Site Code : 00000000
Start Date : 6/12/2014
Page No : 3

	DEAD END Southbound				EDINGER AVENUE Westbound				NEWPORT AVENUE Northbound				EDINGER AVENUE Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	0	0	0	0	0	306	16	322	12	0	80	92	**123**	281	0	**2**	406	820
04:45 PM	0	0	0	0	0	291	**36**	327	7	0	60	67	116	201	0	1	318	712
05:00 PM	0	0	0	0	0	**307**	27	**334**	**19**	0	**106**	**125**	89	**317**	0	1	**407**	**866**
05:15 PM	0	0	0	0	0	285	21	306	19	0	58	77	78	309	0	2	389	772
Total Volume	0	0	0	0	0	1189	100	1289	57	0	304	361	406	1108	0	6	1520	3170
% App. Total	0	0	0		0	92.2	7.8		15.8	0	84.2		26.7	72.9	0	0.4		
PHF	.000	.000	.000	.000	.000	.968	.694	.965	.750	.000	.717	.722	.825	.874	.000	.750	.934	.915



City: TUSTIN
N-S Direction: DEL AMO AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405077
Site Code : 00000000
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

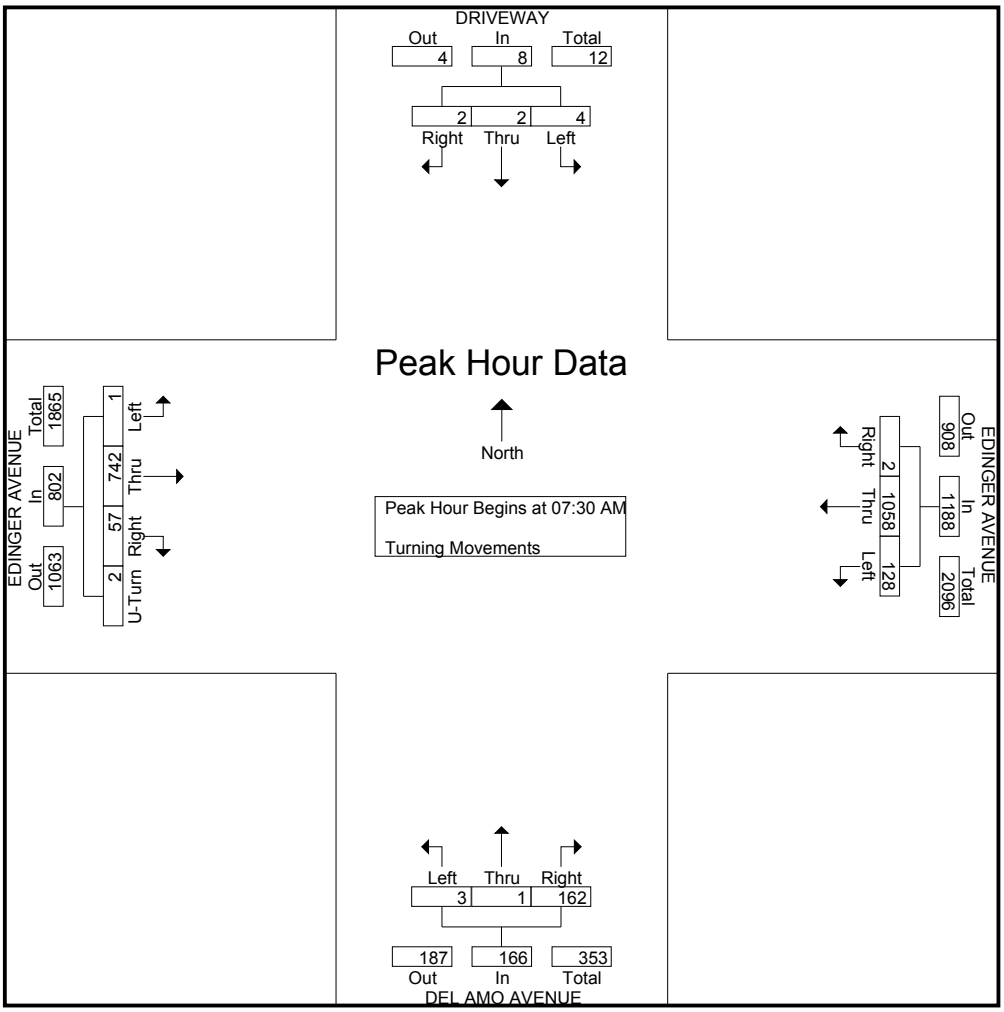
	DRIVEWAY Southbound			EDINGER AVENUE Westbound			DEL AMO AVENUE Northbound			EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	1	0	1	181	13	29	0	0	8	165	0	1	401
07:15 AM	0	0	0	0	241	22	48	1	0	13	182	4	0	511
07:30 AM	2	1	2	1	257	26	47	0	2	9	205	1	2	555
07:45 AM	0	0	1	0	313	45	41	1	1	14	185	0	0	601
Total	4	2	3	2	992	106	165	2	3	44	737	5	3	2068
08:00 AM	0	1	0	0	243	21	28	0	0	21	181	0	0	495
08:15 AM	0	0	1	1	245	36	46	0	0	13	171	0	0	513
08:30 AM	1	0	0	0	280	30	37	0	2	16	148	1	0	515
08:45 AM	0	1	0	0	273	26	41	2	2	9	156	1	0	511
Total	1	2	1	1	1041	113	152	2	4	59	656	2	0	2034
*** BREAK ***														
04:00 PM	0	0	1	0	283	52	20	0	16	57	179	0	1	609
04:15 PM	0	0	0	0	280	79	16	0	10	43	197	0	0	625
04:30 PM	0	1	0	1	313	75	16	0	8	41	242	0	1	698
04:45 PM	2	0	0	0	296	83	11	0	7	37	184	0	4	624
Total	2	1	1	1	1172	289	63	0	41	178	802	0	6	2556
05:00 PM	0	1	0	0	316	74	34	0	17	53	318	0	2	815
05:15 PM	0	0	0	0	277	53	21	0	12	43	297	0	2	705
05:30 PM	0	0	2	0	347	84	27	0	10	30	231	0	2	733
05:45 PM	0	0	1	0	231	79	17	0	4	14	253	0	0	599
Total	0	1	3	0	1171	290	99	0	43	140	1099	0	6	2852
Grand Total	7	6	8	4	4376	798	479	4	91	421	3294	7	15	9510
Apprch %	33.3	28.6	38.1	0.1	84.5	15.4	83.4	0.7	15.9	11.3	88.1	0.2	0.4	
Total %	0.1	0.1	0.1	0	46	8.4	5	0	1	4.4	34.6	0.1	0.2	

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

City: TUSTIN
N-S Direction: DEL AMO AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405077
Site Code : 00000000
Start Date : 6/12/2014
Page No : 2

	DRIVEWAY Southbound				EDINGER AVENUE Westbound				DEL AMO AVENUE Northbound				EDINGER AVENUE Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	**2**	**1**	**2**	**5**	**1**	257	26	284	**47**	0	**2**	**49**	9	**205**	**1**	**2**	**217**	555
07:45 AM	0	0	1	1	0	**313**	**45**	**358**	41	**1**	1	43	14	185	0	0	199	**601**
08:00 AM	0	1	0	1	0	243	21	264	28	0	0	28	**21**	181	0	0	202	495
08:15 AM	0	0	1	1	1	245	36	282	46	0	0	46	13	171	0	0	184	513
Total Volume	2	2	4	8	2	1058	128	1188	162	1	3	166	57	742	1	2	802	2164
% App. Total	25	25	50		0.2	89.1	10.8		97.6	0.6	1.8		7.1	92.5	0.1	0.2		
PHF	.250	.500	.500	.400	.500	.845	.711	.830	.862	.250	.375	.847	.679	.905	.250	.250	.924	.900

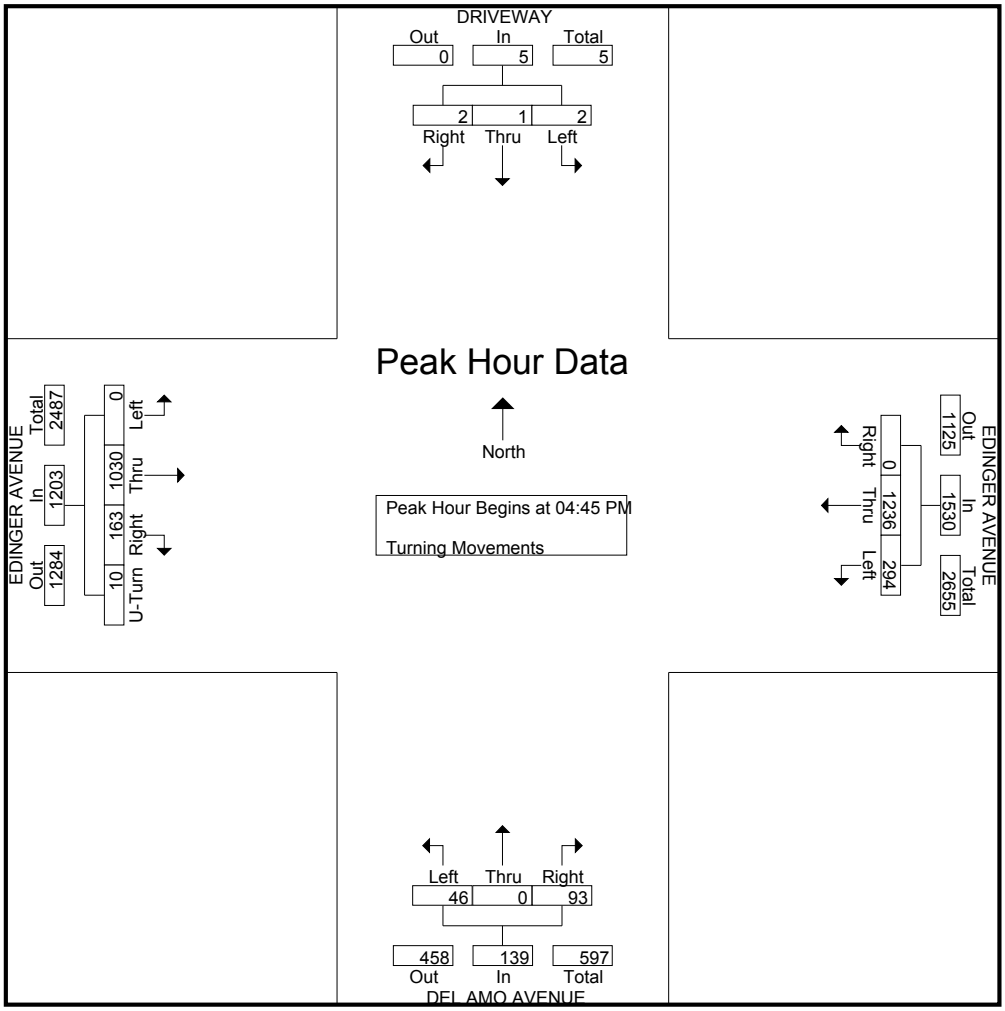


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: DEL AMO AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405077
Site Code : 00000000
Start Date : 6/12/2014
Page No : 3

	DRIVEWAY Southbound				EDINGER AVENUE Westbound				DEL AMO AVENUE Northbound				EDINGER AVENUE Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	**2**	0	0	**2**	0	296	83	379	11	0	7	18	37	184	0	**4**	225	624
05:00 PM	0	**1**	0	1	0	316	74	390	**34**	0	**17**	**51**	**53**	**318**	0	2	**373**	**815**
05:15 PM	0	0	0	0	0	277	53	330	21	0	12	33	43	297	0	2	342	705
05:30 PM	0	0	**2**	2	0	**347**	**84**	**431**	27	0	10	37	30	231	0	2	263	733
Total Volume	2	1	2	5	0	1236	294	1530	93	0	46	139	163	1030	0	10	1203	2877
% App. Total	40	20	40		0	80.8	19.2		66.9	0	33.1		13.5	85.6	0	0.8		
PHF	.250	.250	.250	.625	.000	.890	.875	.887	.684	.000	.676	.681	.769	.810	.000	.625	.806	.883



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

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405078
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

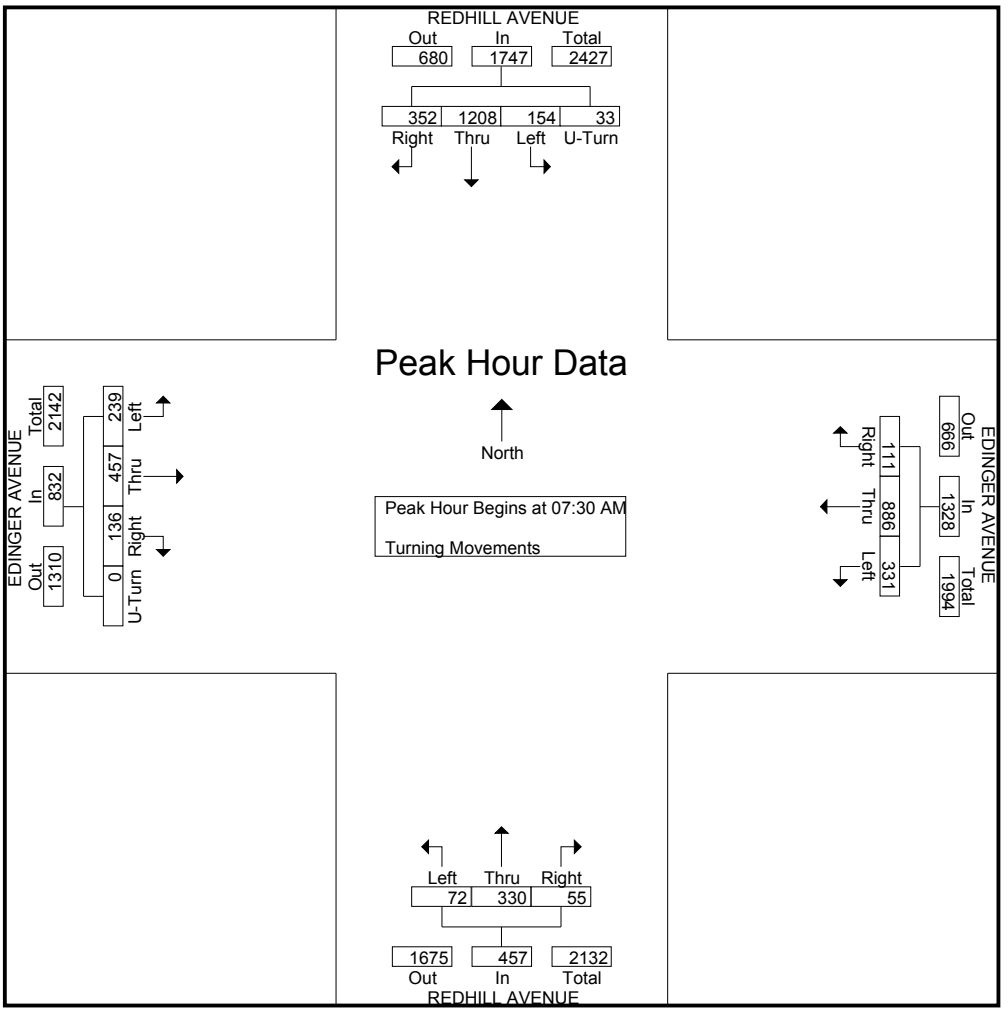
	REDHILL AVENUE Southbound				EDINGER AVENUE Westbound			REDHILL AVENUE Northbound			EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	79	189	26	9	22	73	33	9	50	11	20	79	49	0	649
07:15 AM	95	233	34	6	32	148	66	9	52	12	25	95	57	1	865
07:30 AM	100	275	36	9	35	226	75	8	80	9	32	113	65	0	1063
07:45 AM	122	350	41	8	28	224	77	14	75	24	31	95	66	0	1155
Total	396	1047	137	32	117	671	251	40	257	56	108	382	237	1	3732
08:00 AM	57	267	40	8	19	241	98	16	99	21	34	144	46	0	1090
08:15 AM	73	316	37	8	29	195	81	17	76	18	39	105	62	0	1056
08:30 AM	76	199	33	8	28	207	69	16	68	17	23	125	50	1	920
08:45 AM	70	230	34	11	25	168	67	9	67	21	46	123	46	3	920
Total	276	1012	144	35	101	811	315	58	310	77	142	497	204	4	3986
*** BREAK ***															
04:00 PM	65	100	14	2	79	263	24	37	390	44	28	93	71	11	1221
04:15 PM	54	88	45	9	98	277	34	41	350	52	26	102	74	2	1252
04:30 PM	35	91	22	3	103	257	31	44	432	46	32	122	84	8	1310
04:45 PM	67	95	34	7	93	276	23	53	415	51	29	100	66	5	1314
Total	221	374	115	21	373	1073	112	175	1587	193	115	417	295	26	5097
05:00 PM	70	93	29	6	86	232	30	47	432	57	31	205	115	4	1437
05:15 PM	62	91	32	9	120	255	28	48	448	43	20	233	104	3	1496
05:30 PM	46	101	25	8	92	263	30	48	426	54	26	196	80	2	1397
05:45 PM	69	130	19	5	88	234	27	35	446	50	13	141	62	2	1321
Total	247	415	105	28	386	984	115	178	1752	204	90	775	361	11	5651
Grand Total	1140	2848	501	116	977	3539	793	451	3906	530	455	2071	1097	42	18466
Apprch %	24.8	61.8	10.9	2.5	18.4	66.7	14.9	9.2	79.9	10.8	12.4	56.5	29.9	1.1	
Total %	6.2	15.4	2.7	0.6	5.3	19.2	4.3	2.4	21.2	2.9	2.5	11.2	5.9	0.2	

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

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405078
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	REDHILL AVENUE Southbound					EDINGER AVENUE Westbound				REDHILL AVENUE Northbound				EDINGER AVENUE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	100	275	36	**9**	420	**35**	226	75	336	8	80	9	97	32	113	65	0	210	1063
07:45 AM	**122**	**350**	**41**	8	**521**	28	224	77	329	14	75	**24**	113	31	95	**66**	0	192	**1155**
08:00 AM	57	267	40	8	372	19	**241**	**98**	**358**	16	**99**	21	**136**	34	**144**	46	0	**224**	1090
08:15 AM	73	316	37	8	434	29	195	81	305	**17**	76	18	111	**39**	105	62	0	206	1056
Total Volume	352	1208	154	33	1747	111	886	331	1328	55	330	72	457	136	457	239	0	832	4364
% App. Total	20.1	69.1	8.8	1.9		8.4	66.7	24.9		12	72.2	15.8		16.3	54.9	28.7	0		
PHF	.721	.863	.939	.917	.838	.793	.919	.844	.927	.809	.833	.750	.840	.872	.793	.905	.000	.929	.945

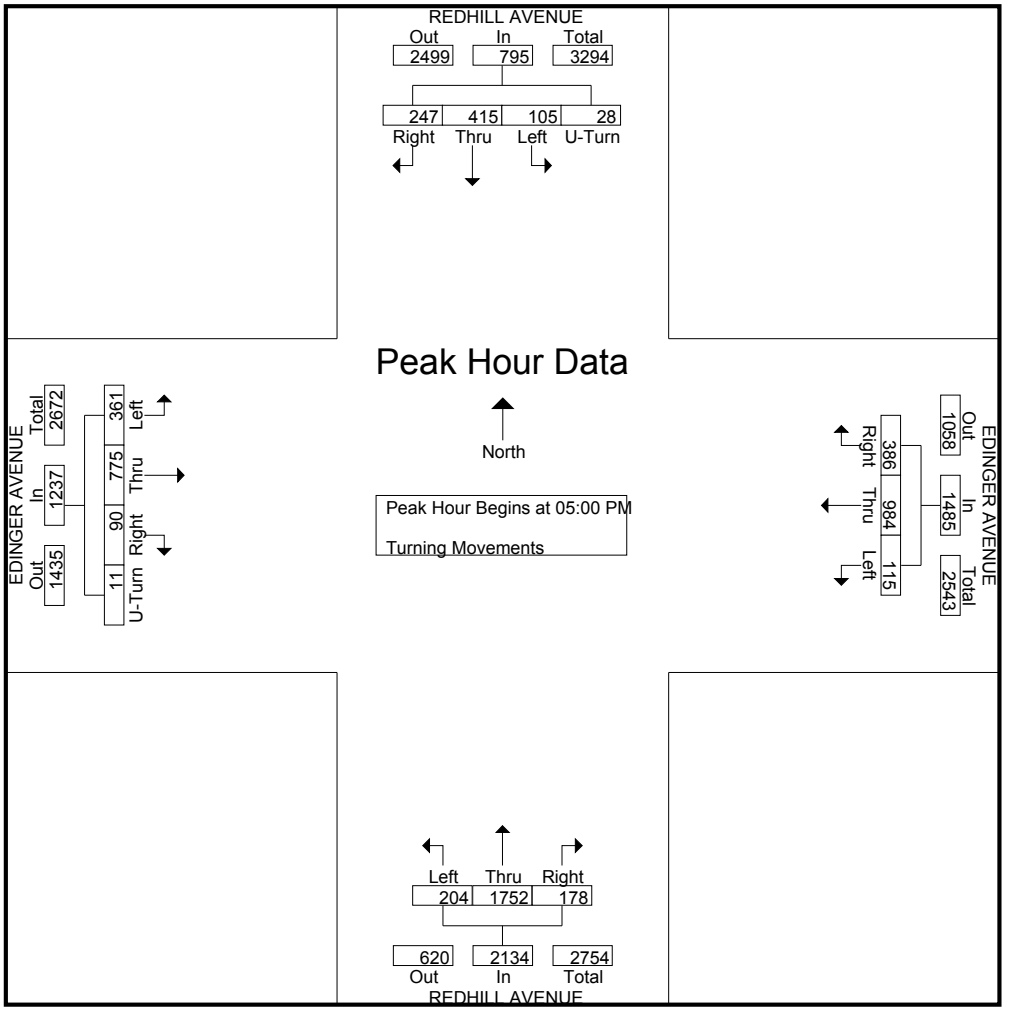


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: EDINGER AVENUE

File Name : H1405078
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound					EDINGER AVENUE Westbound				REDHILL AVENUE Northbound				EDINGER AVENUE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	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	**70**	93	29	6	198	86	232	**30**	348	47	432	**57**	536	**31**	205	**115**	**4**	355	1437
05:15 PM	62	91	**32**	**9**	194	**120**	255	28	**403**	**48**	**448**	43	**539**	20	**233**	104	3	**360**	**1496**
05:30 PM	46	101	25	8	180	92	**263**	30	385	48	426	54	528	26	196	80	2	304	1397
05:45 PM	69	**130**	19	5	**223**	88	234	27	349	35	446	50	531	13	141	62	2	218	1321
Total Volume	247	415	105	28	795	386	984	115	1485	178	1752	204	2134	90	775	361	11	1237	5651
% App. Total	31.1	52.2	13.2	3.5		26	66.3	7.7		8.3	82.1	9.6		7.3	62.7	29.2	0.9		
PHF	.882	.798	.820	.778	.891	.804	.935	.958	.921	.927	.978	.895	.990	.726	.832	.785	.688	.859	.944



City: TUSTIN
N-S Direction: KENSINGTON PARK DRIVE
E-W Direction: EDINGER AVENUE

File Name : H1405084
Site Code : 00000000
Start Date : 6/5/2014
Page No : 1

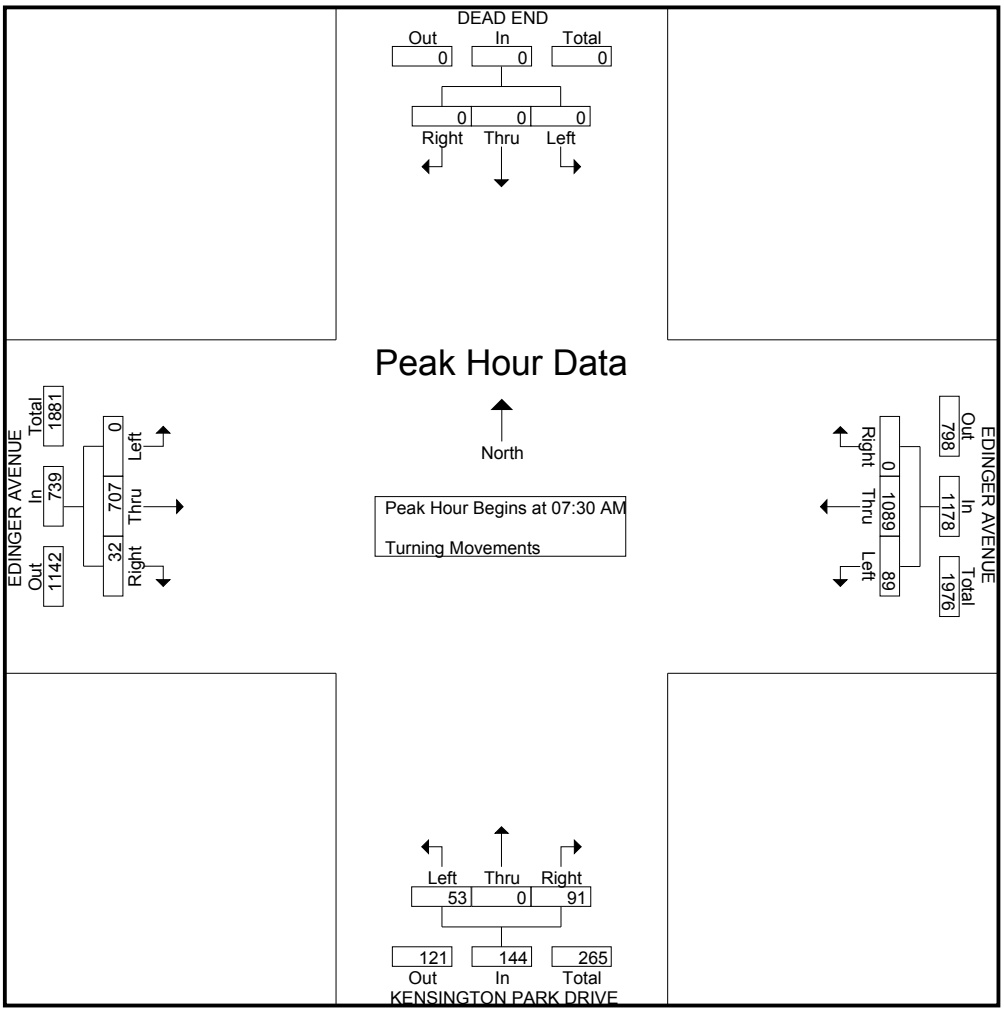
Groups Printed- Turning Movements

	DEAD END Southbound			EDINGER AVENUE Westbound			KENSINGTON PARK DRIVE Northbound			EDINGER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	145	12	17	0	10	3	117	0	304
07:15 AM	0	0	0	0	207	19	19	0	6	7	152	0	410
07:30 AM	0	0	0	0	254	21	24	0	13	5	186	0	503
07:45 AM	0	0	0	0	307	22	28	0	19	11	191	0	578
Total	0	0	0	0	913	74	88	0	48	26	646	0	1795
08:00 AM	0	0	0	0	258	24	19	0	8	7	164	0	480
08:15 AM	0	0	0	0	270	22	20	0	13	9	166	0	500
08:30 AM	0	0	0	0	200	24	26	0	12	10	150	0	422
08:45 AM	0	0	0	0	198	13	26	0	14	14	143	0	408
Total	0	0	0	0	926	83	91	0	47	40	623	0	1810
*** BREAK ***													
04:00 PM	0	0	0	0	283	22	22	0	12	19	134	0	492
04:15 PM	0	0	0	0	323	21	33	0	13	14	158	0	562
04:30 PM	0	0	0	0	298	33	29	0	8	13	193	0	574
04:45 PM	0	0	0	0	323	30	37	0	9	13	197	0	609
Total	0	0	0	0	1227	106	121	0	42	59	682	0	2237
05:00 PM	0	0	0	0	308	25	34	0	13	16	211	0	607
05:15 PM	0	0	0	0	369	35	37	0	9	20	252	0	722
05:30 PM	0	0	0	0	401	44	41	0	13	24	254	0	777
05:45 PM	0	0	0	0	296	39	32	0	6	26	212	0	611
Total	0	0	0	0	1374	143	144	0	41	86	929	0	2717
Grand Total	0	0	0	0	4440	406	444	0	178	211	2880	0	8559
Apprch %	0	0	0	0	91.6	8.4	71.4	0	28.6	6.8	93.2	0	
Total %	0	0	0	0	51.9	4.7	5.2	0	2.1	2.5	33.6	0	

City: TUSTIN
N-S Direction: KENSINGTON PARK DRIVE
E-W Direction: EDINGER AVENUE

File Name : H1405084
Site Code : 00000000
Start Date : 6/5/2014
Page No : 2

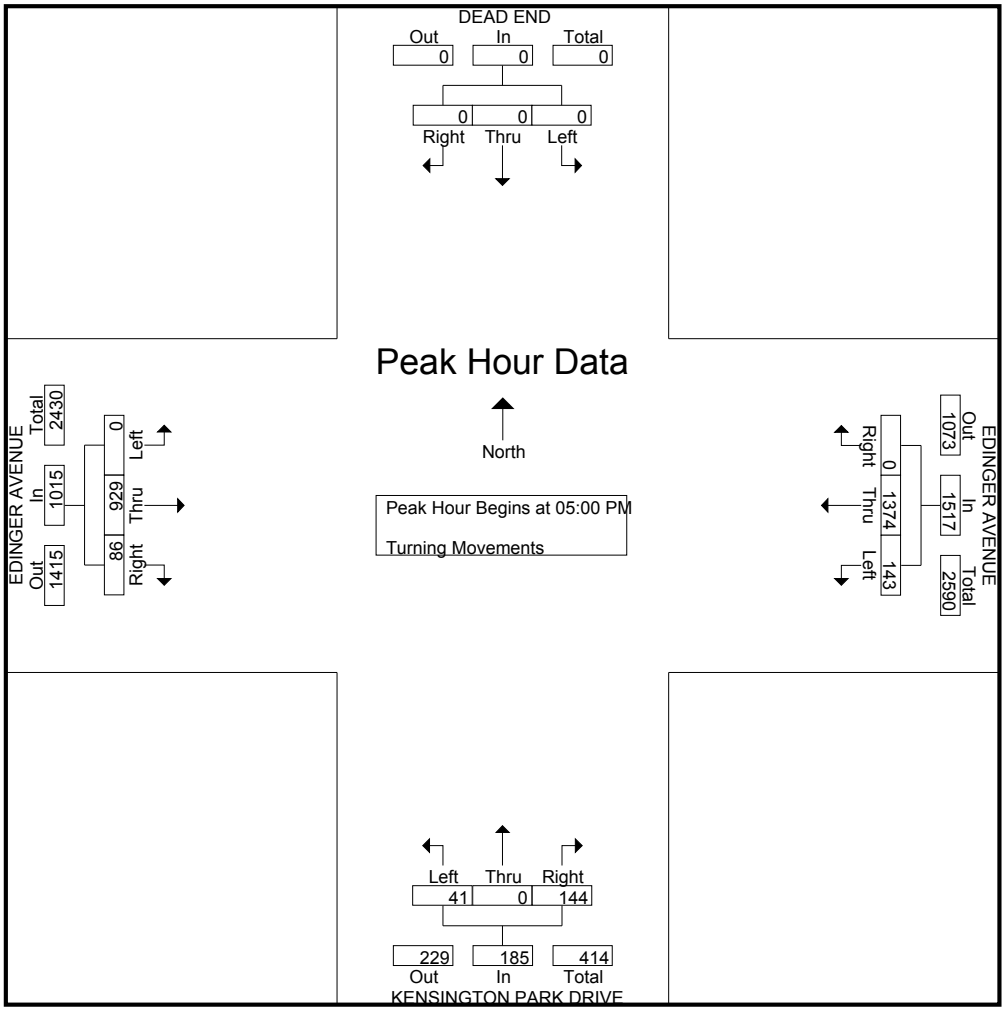
	DEAD END Southbound				EDINGER AVENUE Westbound				KENSINGTON PARK DRIVE Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	254	21	275	24	0	13	37	5	186	0	191	503
07:45 AM	0	0	0	0	0	**307**	22	**329**	**28**	0	**19**	**47**	**11**	**191**	0	**202**	**578**
08:00 AM	0	0	0	0	0	258	**24**	282	19	0	8	27	7	164	0	171	480
08:15 AM	0	0	0	0	0	270	22	292	20	0	13	33	9	166	0	175	500
Total Volume	0	0	0	0	0	1089	89	1178	91	0	53	144	32	707	0	739	2061
% App. Total	0	0	0		0	92.4	7.6		63.2	0	36.8		4.3	95.7	0		
PHF	.000	.000	.000	.000	.000	.887	.927	.895	.813	.000	.697	.766	.727	.925	.000	.915	.891



City: TUSTIN
N-S Direction: KENSINGTON PARK DRIVE
E-W Direction: EDINGER AVENUE

File Name : H1405084
Site Code : 00000000
Start Date : 6/5/2014
Page No : 3

	DEAD END Southbound				EDINGER AVENUE Westbound				KENSINGTON PARK DRIVE Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	308	25	333	34	0	**13**	47	16	211	0	227	607
05:15 PM	0	0	0	0	0	369	35	404	37	0	9	46	20	252	0	272	722
05:30 PM	0	0	0	0	0	**401**	**44**	**445**	**41**	0	13	**54**	24	**254**	0	**278**	**777**
05:45 PM	0	0	0	0	0	296	39	335	32	0	6	38	**26**	212	0	238	611
Total Volume	0	0	0	0	0	1374	143	1517	144	0	41	185	86	929	0	1015	2717
% App. Total	0	0	0		0	90.6	9.4		77.8	0	22.2		8.5	91.5	0		
PHF	.000	.000	.000	.000	.000	.857	.813	.852	.878	.000	.788	.856	.827	.914	.000	.913	.874



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

City: TUSTIN
N-S Direction: JAMBOREE ROAD
E-W Direction: EDINGER AVENUE

File Name : H1404045
Site Code : 133
Start Date : 5/14/2014
Page No : 1

Groups Printed- Turning Movements

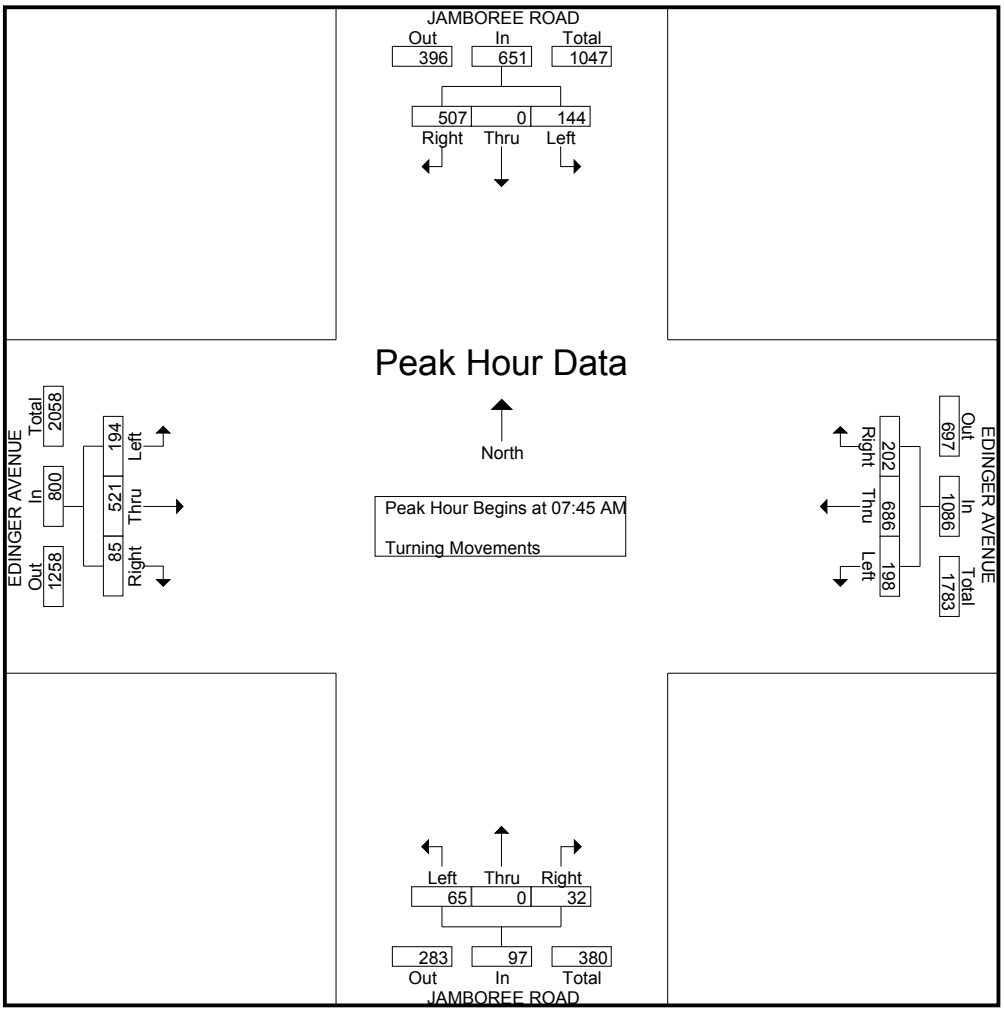
	JAMBOREE ROAD Southbound			EDINGER AVENUE Westbound			JAMBOREE ROAD Northbound			EDINGER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	109	0	15	33	109	26	9	0	14	18	90	39	462
07:15 AM	83	0	34	35	112	41	7	0	13	26	101	34	486
07:30 AM	111	0	23	43	140	39	5	0	8	21	151	45	586
07:45 AM	158	0	37	44	178	62	9	0	15	18	135	49	705
Total	461	0	109	155	539	168	30	0	50	83	477	167	2239
08:00 AM	121	0	30	60	187	51	7	0	14	17	147	56	690
08:15 AM	104	0	31	51	151	45	8	0	16	29	126	57	618
08:30 AM	124	0	46	47	170	40	8	0	20	21	113	32	621
08:45 AM	118	0	39	55	143	39	14	0	14	16	126	46	610
Total	467	0	146	213	651	175	37	0	64	83	512	191	2539
*** BREAK ***													
04:00 PM	69	0	30	27	171	22	36	0	51	15	96	67	584
04:15 PM	106	0	47	41	248	29	44	0	58	20	137	70	800
04:30 PM	80	0	55	39	244	23	35	0	52	30	64	64	686
04:45 PM	78	0	42	41	271	14	64	0	56	25	153	96	840
Total	333	0	174	148	934	88	179	0	217	90	450	297	2910
05:00 PM	73	0	62	36	215	72	45	0	50	29	193	104	879
05:15 PM	95	0	60	61	232	13	61	0	74	24	182	139	941
05:30 PM	94	0	64	56	282	23	64	0	45	29	231	93	981
05:45 PM	93	0	73	100	234	28	59	0	58	23	218	100	986
Total	355	0	259	253	963	136	229	0	227	105	824	436	3787
Grand Total	1616	0	688	769	3087	567	475	0	558	361	2263	1091	11475
Apprch %	70.1	0	29.9	17.4	69.8	12.8	46	0	54	9.7	60.9	29.4	
Total %	14.1	0	6	6.7	26.9	4.9	4.1	0	4.9	3.1	19.7	9.5	

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

City: TUSTIN
N-S Direction: JAMBOREE ROAD
E-W Direction: EDINGER AVENUE

File Name : H1404045
Site Code : 133
Start Date : 5/14/2014
Page No : 2

	JAMBOREE ROAD Southbound				EDINGER AVENUE Westbound				JAMBOREE ROAD Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**158**	0	37	**195**	44	178	**62**	284	**9**	0	15	24	18	135	49	202	**705**
08:00 AM	121	0	30	151	**60**	**187**	51	**298**	7	0	14	21	17	**147**	56	**220**	690
08:15 AM	104	0	31	135	51	151	45	247	8	0	16	24	**29**	126	**57**	212	618
08:30 AM	124	0	**46**	170	47	170	40	257	8	0	**20**	**28**	21	113	32	166	621
Total Volume	507	0	144	651	202	686	198	1086	32	0	65	97	85	521	194	800	2634
% App. Total	77.9	0	22.1		18.6	63.2	18.2		33	0	67		10.6	65.1	24.2		
PHF	.802	.000	.783	.835	.842	.917	.798	.911	.889	.000	.813	.866	.733	.886	.851	.909	.934



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

City: TUSTIN
N-S Direction: JAMBOREE ROAD
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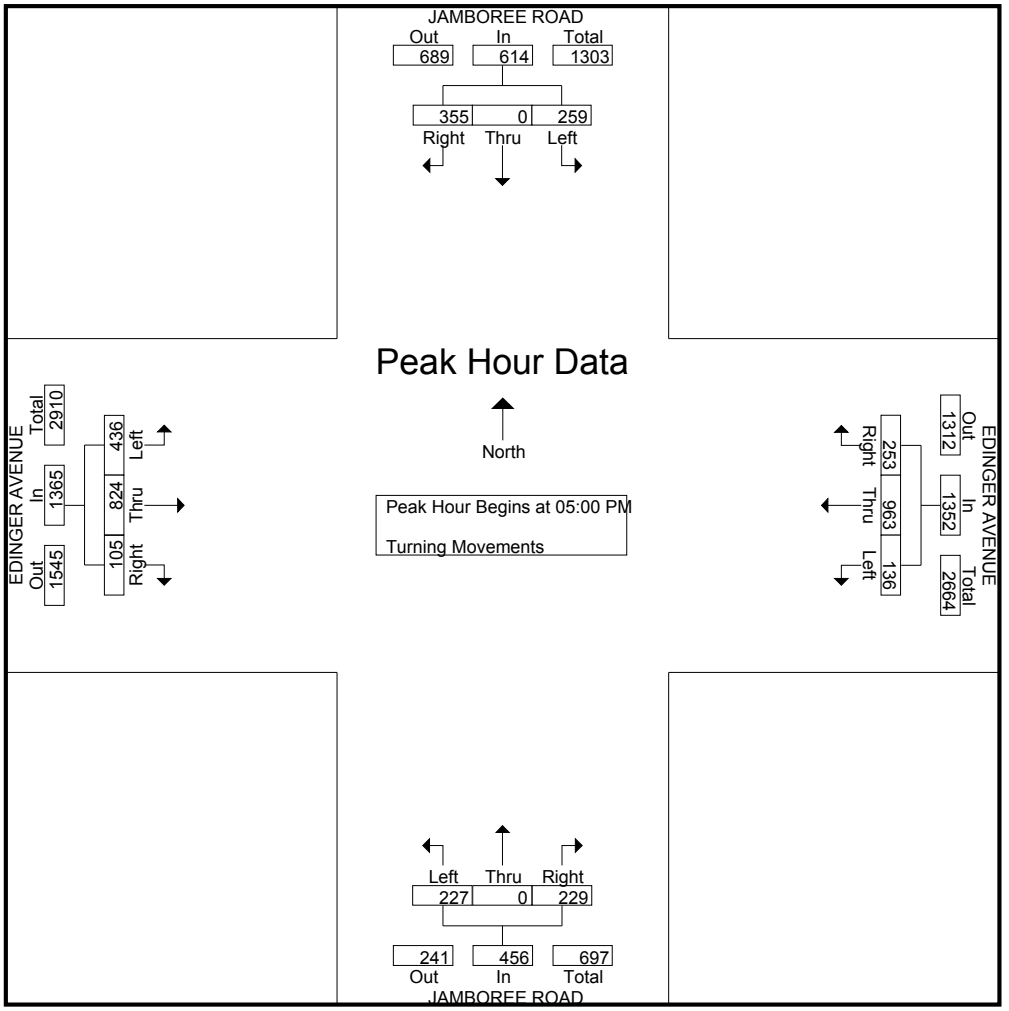
File Name : H1404045
Site Code : 133
Start Date : 5/14/2014
Page No : 3

	JAMBOREE ROAD Southbound				EDINGER AVENUE Westbound				JAMBOREE ROAD Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	73	0	62	135	36	215	**72**	323	45	0	50	95	**29**	193	104	326	879
05:15 PM	**95**	0	60	155	61	232	13	306	61	0	**74**	**135**	24	182	**139**	345	941
05:30 PM	94	0	64	158	56	**282**	23	361	**64**	0	45	109	29	**231**	93	**353**	981
05:45 PM	93	0	**73**	**166**	**100**	234	28	**362**	59	0	58	117	23	218	100	341	**986**
Total Volume	355	0	259	614	253	963	136	1352	229	0	227	456	105	824	436	1365	3787
% App. Total	57.8	0	42.2		18.7	71.2	10.1		50.2	0	49.8		7.7	60.4	31.9		
PHF	.934	.000	.887	.925	.633	.854	.472	.934	.895	.000	.767	.844	.905	.892	.784	.967	.960



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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: EDINGER AVE/ ICD

File Name : H1405097
Site Code : 00005701
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

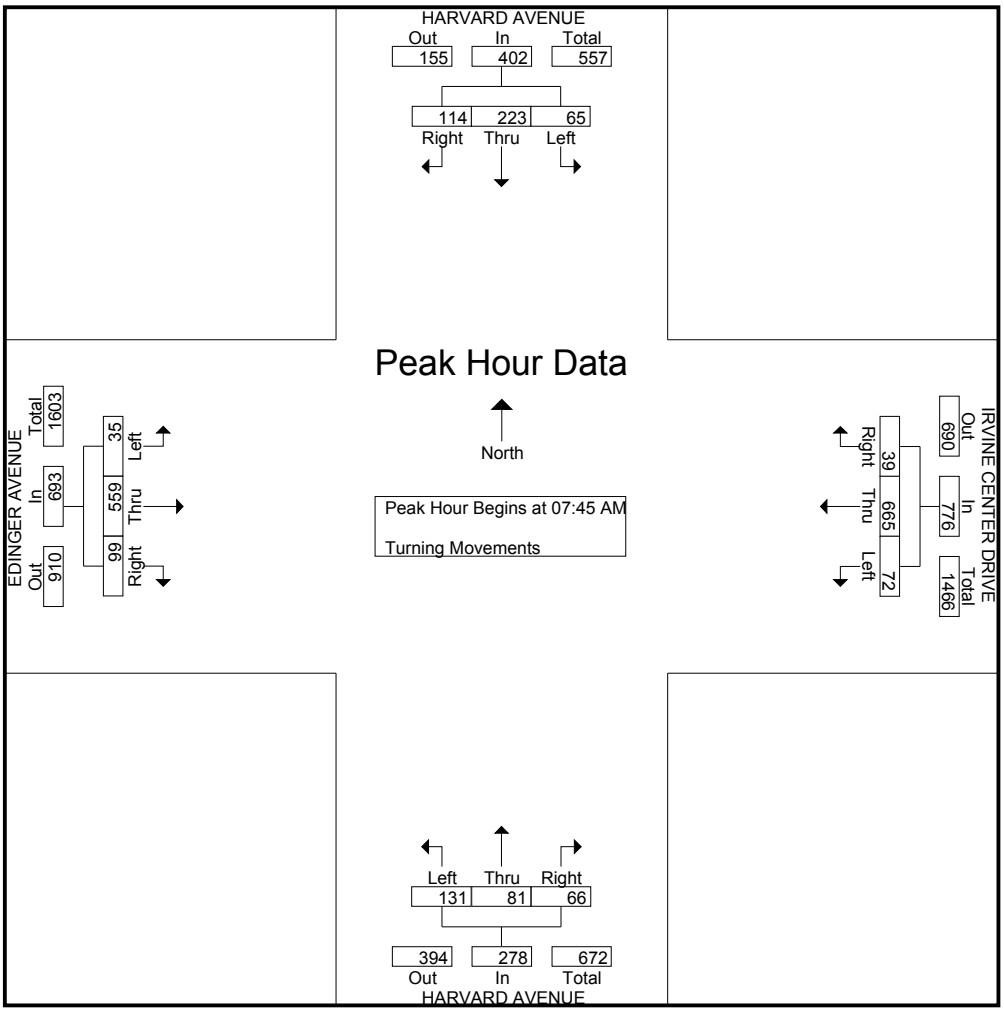
	HARVARD AVENUE Southbound			IRVINE CENTER DRIVE Westbound			HARVARD AVENUE Northbound			EDINGER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	25	12	4	10	98	9	10	6	26	16	97	11	324
07:15 AM	13	21	11	3	127	11	7	23	20	19	105	3	363
07:30 AM	37	32	10	9	128	18	22	17	23	30	153	2	481
07:45 AM	32	64	18	7	188	18	21	13	31	16	170	4	582
Total	107	129	43	29	541	56	60	59	100	81	525	20	1750
08:00 AM	28	52	8	10	182	18	19	21	41	23	145	9	556
08:15 AM	27	51	19	10	161	20	9	20	29	25	129	12	512
08:30 AM	27	56	20	12	134	16	17	27	30	35	115	10	499
08:45 AM	34	55	19	13	152	22	16	27	29	24	165	4	560
Total	116	214	66	45	629	76	61	95	129	107	554	35	2127
*** BREAK ***													
04:00 PM	17	28	8	12	177	20	21	46	48	25	134	27	563
04:15 PM	10	25	10	33	334	24	17	75	36	45	154	19	782
04:30 PM	14	26	14	13	218	20	29	92	41	34	154	43	698
04:45 PM	18	29	12	26	320	22	39	107	59	37	217	30	916
Total	59	108	44	84	1049	86	106	320	184	141	659	119	2959
05:00 PM	16	40	23	18	234	22	31	101	36	35	177	29	762
05:15 PM	12	49	16	20	357	25	52	101	48	42	241	24	987
05:30 PM	22	35	16	21	354	27	77	124	42	44	210	29	1001
05:45 PM	16	52	25	23	340	41	57	128	55	39	235	23	1034
Total	66	176	80	82	1285	115	217	454	181	160	863	105	3784
Grand Total	348	627	233	240	3504	333	444	928	594	489	2601	279	10620
Apprch %	28.8	51.9	19.3	5.9	85.9	8.2	22.6	47.2	30.2	14.5	77.2	8.3	
Total %	3.3	5.9	2.2	2.3	33	3.1	4.2	8.7	5.6	4.6	24.5	2.6	

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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: EDINGER AVE/ ICD

File Name : H1405097
Site Code : 00005701
Start Date : 6/12/2014
Page No : 2

	HARVARD AVENUE Southbound				IRVINE CENTER DRIVE Westbound				HARVARD AVENUE Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**32**	**64**	18	**114**	7	**188**	18	**213**	**21**	13	31	65	16	**170**	4	**190**	**582**
08:00 AM	28	52	8	88	10	182	18	210	19	21	**41**	**81**	23	145	9	177	556
08:15 AM	27	51	19	97	10	161	**20**	191	9	20	29	58	25	129	**12**	166	512
08:30 AM	27	56	**20**	103	**12**	134	16	162	17	**27**	30	74	**35**	115	10	160	499
Total Volume	114	223	65	402	39	665	72	776	66	81	131	278	99	559	35	693	2149
% App. Total	28.4	55.5	16.2		5	85.7	9.3		23.7	29.1	47.1		14.3	80.7	5.1		
PHF	.891	.871	.813	.882	.813	.884	.900	.911	.786	.750	.799	.858	.707	.822	.729	.912	.923

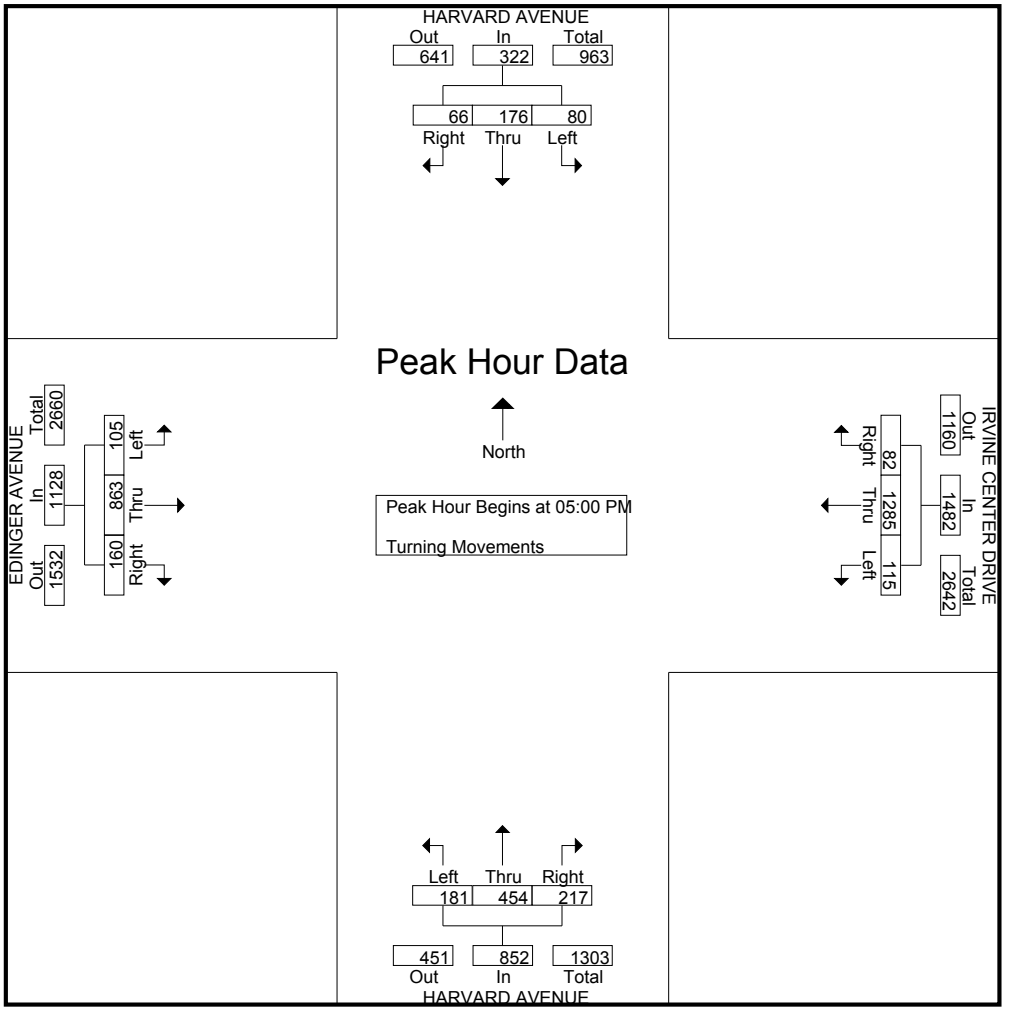


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: EDINGER AVE/ ICD

File Name : H1405097
Site Code : 00005701
Start Date : 6/12/2014
Page No : 3

	HARVARD AVENUE Southbound				IRVINE CENTER DRIVE Westbound				HARVARD AVENUE Northbound				EDINGER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	16	40	23	79	18	234	22	274	31	101	36	168	35	177	**29**	241	762
05:15 PM	12	49	16	77	20	**357**	25	402	52	101	48	201	42	**241**	24	**307**	987
05:30 PM	**22**	35	16	73	21	354	27	402	**77**	124	42	**243**	**44**	210	29	283	1001
05:45 PM	16	**52**	**25**	**93**	**23**	340	**41**	**404**	57	**128**	**55**	240	39	235	23	297	**1034**
Total Volume	66	176	80	322	82	1285	115	1482	217	454	181	852	160	863	105	1128	3784
% App. Total	20.5	54.7	24.8		5.5	86.7	7.8		25.5	53.3	21.2		14.2	76.5	9.3		
PHF	.750	.846	.800	.866	.891	.900	.701	.917	.705	.887	.823	.877	.909	.895	.905	.919	.915



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

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: IRVINE CENTER DRIVE

File Name : H1404061
Site Code : 226
Start Date : 6/3/2014
Page No : 1

Groups Printed- Turning Movements

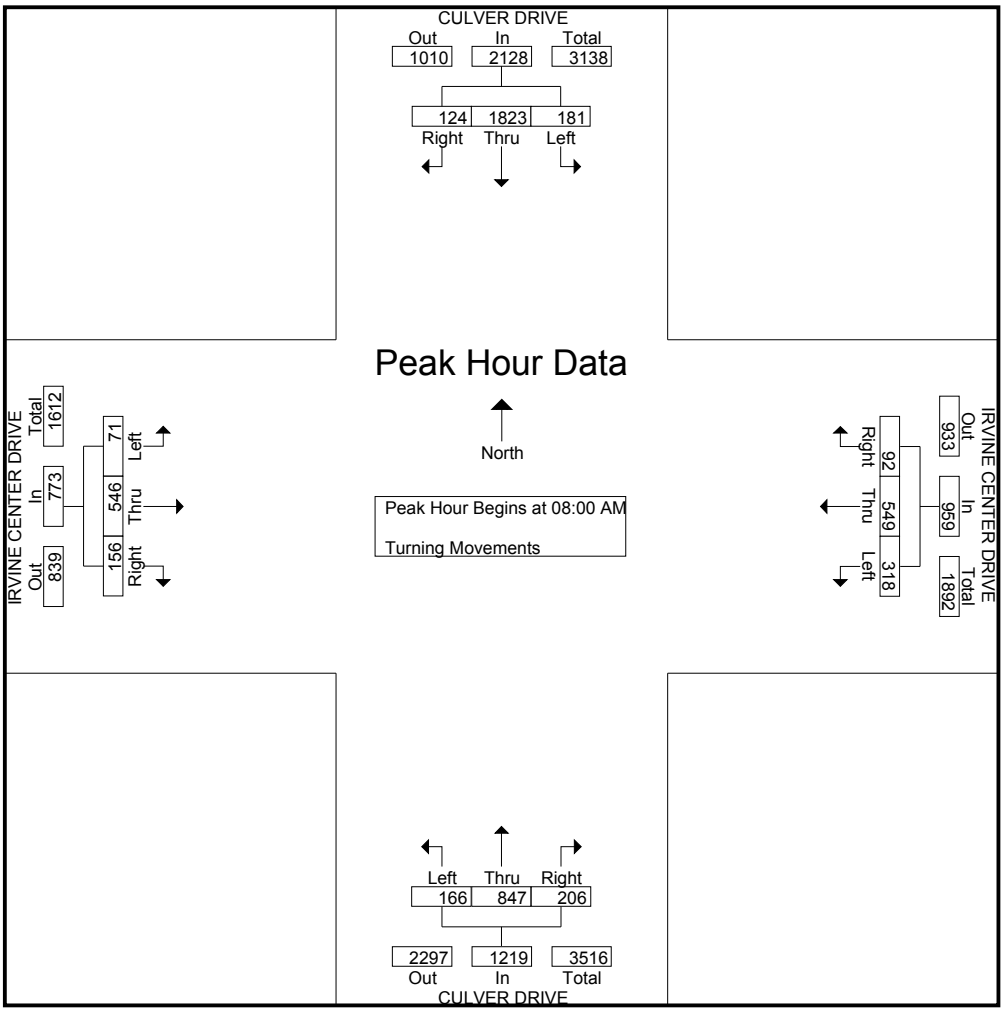
	CULVER DRIVE Southbound			IRVINE CENTER DRIVE Westbound			CULVER DRIVE Northbound			IRVINE CENTER DRIVE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	6	163	21	16	62	31	17	170	26	22	65	32	631
07:15 AM	13	247	41	27	88	50	30	278	41	25	81	27	948
07:30 AM	28	369	38	15	103	73	24	120	34	36	112	26	978
07:45 AM	33	430	37	21	158	81	38	152	48	59	136	23	1216
Total	80	1209	137	79	411	235	109	720	149	142	394	108	3773
08:00 AM	33	433	38	19	118	79	50	170	44	30	138	9	1161
08:15 AM	34	473	36	15	131	79	50	228	40	46	143	20	1295
08:30 AM	23	459	51	30	133	73	39	225	42	45	125	11	1256
08:45 AM	34	458	56	28	167	87	67	224	40	35	140	31	1367
Total	124	1823	181	92	549	318	206	847	166	156	546	71	5079
*** BREAK ***													
04:00 PM	15	240	39	84	304	85	23	198	35	22	70	28	1143
04:15 PM	33	240	50	34	218	37	20	212	31	24	98	31	1028
04:30 PM	25	258	36	42	208	33	48	322	64	32	90	23	1181
04:45 PM	23	291	55	74	193	37	74	420	41	30	134	44	1416
Total	96	1029	180	234	923	192	165	1152	171	108	392	126	4768
05:00 PM	26	296	59	36	213	76	69	429	79	50	138	30	1501
05:15 PM	28	286	52	31	287	68	103	451	93	39	169	40	1647
05:30 PM	34	295	69	46	297	83	90	479	88	52	170	46	1749
05:45 PM	40	314	81	50	214	58	84	482	86	37	171	46	1663
Total	128	1191	261	163	1011	285	346	1841	346	178	648	162	6560
Grand Total	428	5252	759	568	2894	1030	826	4560	832	584	1980	467	20180
Apprch %	6.6	81.6	11.8	12.6	64.4	22.9	13.3	73.3	13.4	19.3	65.3	15.4	
Total %	2.1	26	3.8	2.8	14.3	5.1	4.1	22.6	4.1	2.9	9.8	2.3	

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

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: IRVINE CENTER DRIVE

File Name : H1404061
Site Code : 226
Start Date : 6/3/2014
Page No : 2

	CULVER DRIVE Southbound				IRVINE CENTER DRIVE Westbound				CULVER DRIVE Northbound				IRVINE CENTER DRIVE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	33	433	38	504	19	118	79	216	50	170	**44**	264	30	138	9	177	1161
08:15 AM	**34**	**473**	36	543	15	131	79	225	50	**228**	40	318	**46**	**143**	20	**209**	1295
08:30 AM	23	459	51	533	**30**	133	73	236	39	225	42	306	45	125	11	181	1256
08:45 AM	34	458	**56**	**548**	28	**167**	**87**	**282**	**67**	224	40	**331**	35	140	**31**	206	**1367**
Total Volume	124	1823	181	2128	92	549	318	959	206	847	166	1219	156	546	71	773	5079
% App. Total	5.8	85.7	8.5		9.6	57.2	33.2		16.9	69.5	13.6		20.2	70.6	9.2		
PHF	.912	.964	.808	.971	.767	.822	.914	.850	.769	.929	.943	.921	.848	.955	.573	.925	.929

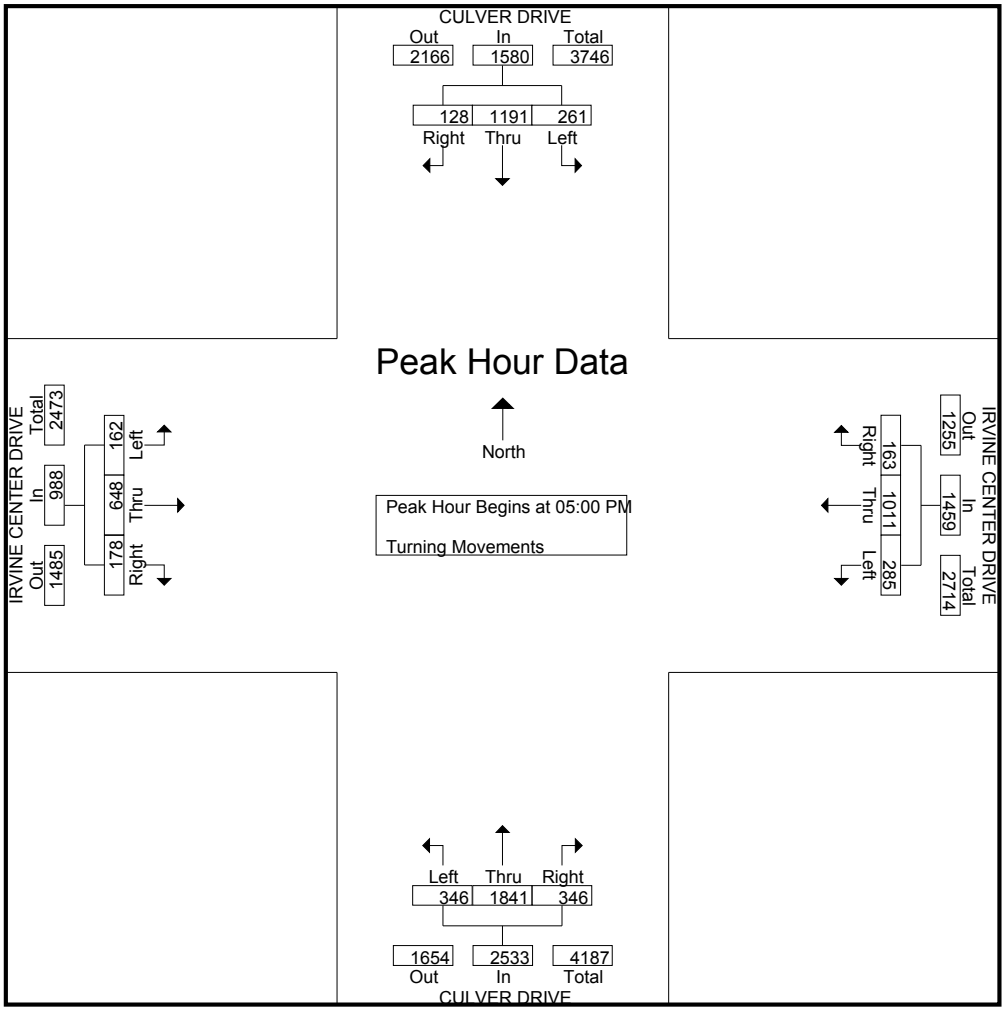


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: IRVINE CENTER DRIVE

File Name : H1404061
Site Code : 226
Start Date : 6/3/2014
Page No : 3

	CULVER DRIVE Southbound				IRVINE CENTER DRIVE Westbound				CULVER DRIVE Northbound				IRVINE CENTER DRIVE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	26	296	59	381	36	213	76	325	69	429	79	577	50	138	30	218	1501
05:15 PM	28	286	52	366	31	287	68	386	**103**	451	**93**	647	39	169	40	248	1647
05:30 PM	34	295	69	398	46	**297**	**83**	**426**	90	479	88	**657**	**52**	170	**46**	**268**	**1749**
05:45 PM	**40**	**314**	**81**	**435**	**50**	214	58	322	84	**482**	86	652	37	**171**	46	254	1663
Total Volume	128	1191	261	1580	163	1011	285	1459	346	1841	346	2533	178	648	162	988	6560
% App. Total	8.1	75.4	16.5		11.2	69.3	19.5		13.7	72.7	13.7		18	65.6	16.4		
PHF	.800	.948	.806	.908	.815	.851	.858	.856	.840	.955	.930	.964	.856	.947	.880	.922	.938



City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: PASEO WESTPARK

File Name : H1405098
Site Code : 00005724
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

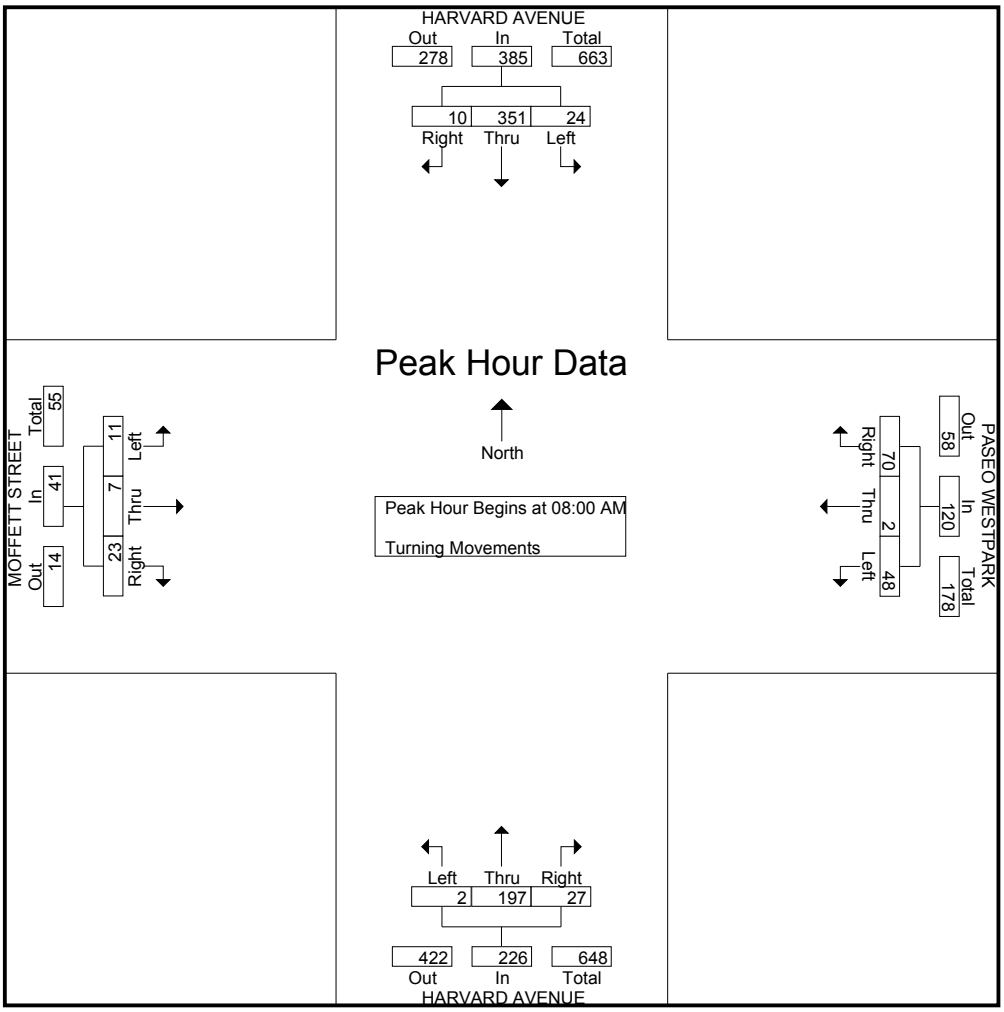
	HARVARD AVENUE Southbound			PASEO WESTPARK Westbound			HARVARD AVENUE Northbound			MOFFETT STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	31	7	5	0	4	2	35	0	1	1	0	86
07:15 AM	2	45	3	9	0	8	3	39	1	2	2	1	115
07:30 AM	3	70	4	14	0	11	0	44	1	2	1	3	153
07:45 AM	3	86	6	24	0	15	6	35	0	7	2	5	189
Total	8	232	20	52	0	38	11	153	2	12	6	9	543
08:00 AM	2	93	8	18	1	7	6	54	0	7	1	5	202
08:15 AM	2	86	4	18	1	15	5	38	0	5	1	2	177
08:30 AM	3	94	8	15	0	8	8	53	0	7	2	3	201
08:45 AM	3	78	4	19	0	18	8	52	2	4	3	1	192
Total	10	351	24	70	2	48	27	197	2	23	7	11	772
*** BREAK ***													
04:00 PM	11	61	7	12	1	3	15	99	3	0	2	2	216
04:15 PM	5	58	8	12	3	8	21	111	0	9	1	4	240
04:30 PM	6	69	5	12	2	8	10	132	1	1	1	2	249
04:45 PM	5	68	3	17	0	3	12	171	2	0	4	4	289
Total	27	256	23	53	6	22	58	513	6	10	8	12	994
05:00 PM	8	71	12	9	1	11	16	181	4	3	0	3	319
05:15 PM	11	100	3	14	3	3	13	205	4	5	3	4	368
05:30 PM	9	81	9	16	4	2	22	211	7	3	1	5	370
05:45 PM	10	111	11	19	1	6	14	202	7	5	2	6	394
Total	38	363	35	58	9	22	65	799	22	16	6	18	1451
Grand Total	83	1202	102	233	17	130	161	1662	32	61	27	50	3760
Apprch %	6	86.7	7.4	61.3	4.5	34.2	8.7	89.6	1.7	44.2	19.6	36.2	
Total %	2.2	32	2.7	6.2	0.5	3.5	4.3	44.2	0.9	1.6	0.7	1.3	

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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: PASEO WESTPARK

File Name : H1405098
Site Code : 00005724
Start Date : 6/12/2014
Page No : 2

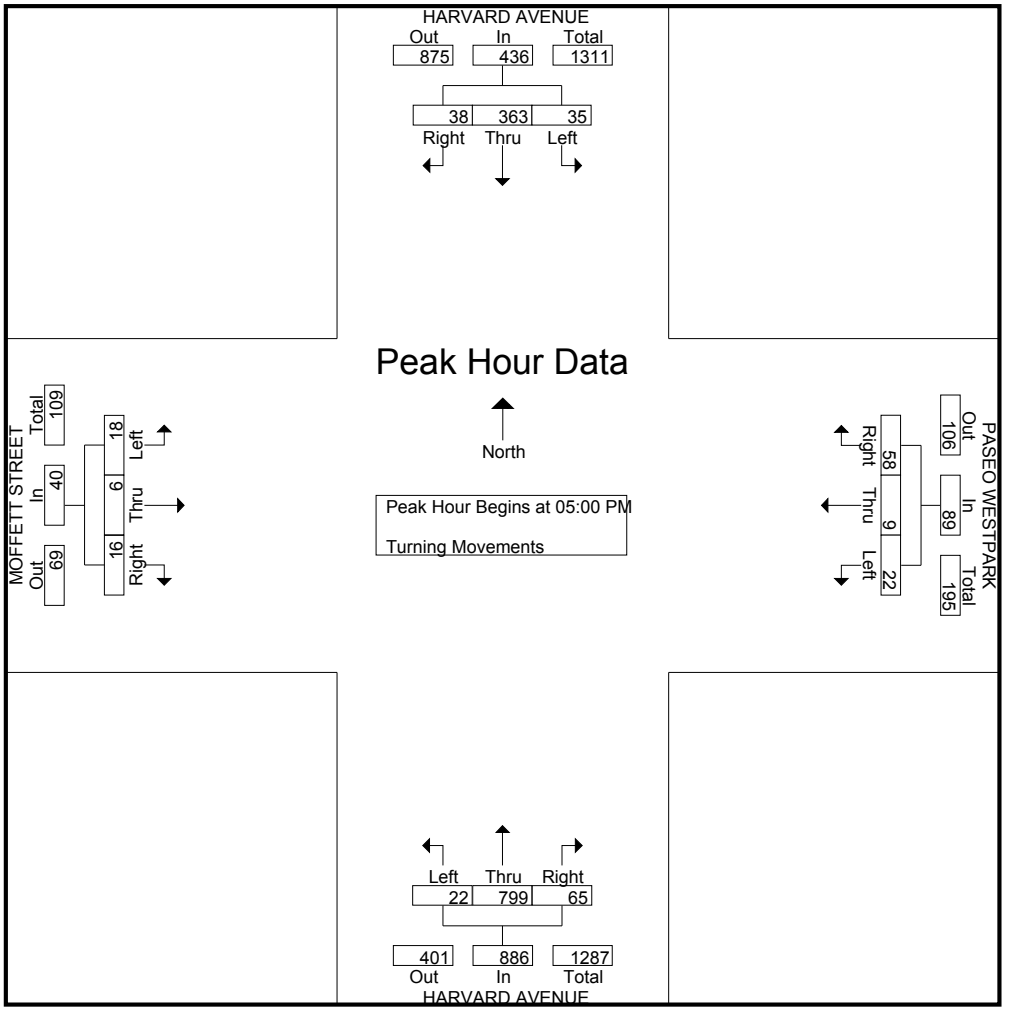
	HARVARD AVENUE Southbound				PASEO WESTPARK Westbound				HARVARD AVENUE Northbound				MOFFETT STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	2	93	**8**	103	18	**1**	7	26	6	**54**	0	60	**7**	1	**5**	**13**	**202**
08:15 AM	2	86	4	92	18	1	15	34	5	38	0	43	5	1	2	8	177
08:30 AM	**3**	**94**	8	**105**	15	0	8	23	**8**	53	0	61	7	2	3	12	201
08:45 AM	3	78	4	85	**19**	0	**18**	**37**	8	52	**2**	**62**	4	**3**	1	8	192
Total Volume	10	351	24	385	70	2	48	120	27	197	2	226	23	7	11	41	772
% App. Total	2.6	91.2	6.2		58.3	1.7	40		11.9	87.2	0.9		56.1	17.1	26.8		
PHF	.833	.934	.750	.917	.921	.500	.667	.811	.844	.912	.250	.911	.821	.583	.550	.788	.955



City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: PASEO WESTPARK

File Name : H1405098
Site Code : 00005724
Start Date : 6/12/2014
Page No : 3

	HARVARD AVENUE Southbound				PASEO WESTPARK Westbound				HARVARD AVENUE Northbound				MOFFETT STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	8	71	**12**	91	9	1	**11**	21	16	181	4	201	3	0	3	6	319
05:15 PM	**11**	100	3	114	14	3	3	20	13	205	4	222	**5**	**3**	4	12	368
05:30 PM	9	81	9	99	16	**4**	2	22	**22**	**211**	**7**	**240**	3	1	5	9	370
05:45 PM	10	**111**	11	**132**	**19**	1	6	**26**	14	202	7	223	5	2	**6**	**13**	**394**
Total Volume	38	363	35	436	58	9	22	89	65	799	22	886	16	6	18	40	1451
% App. Total	8.7	83.3	8		65.2	10.1	24.7		7.3	90.2	2.5		40	15	45		
PHF	.864	.818	.729	.826	.763	.563	.500	.856	.739	.947	.786	.923	.800	.500	.750	.769	.921



City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: VALENCIA AVENUE

File Name : H1405079
Site Code : 00001944
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

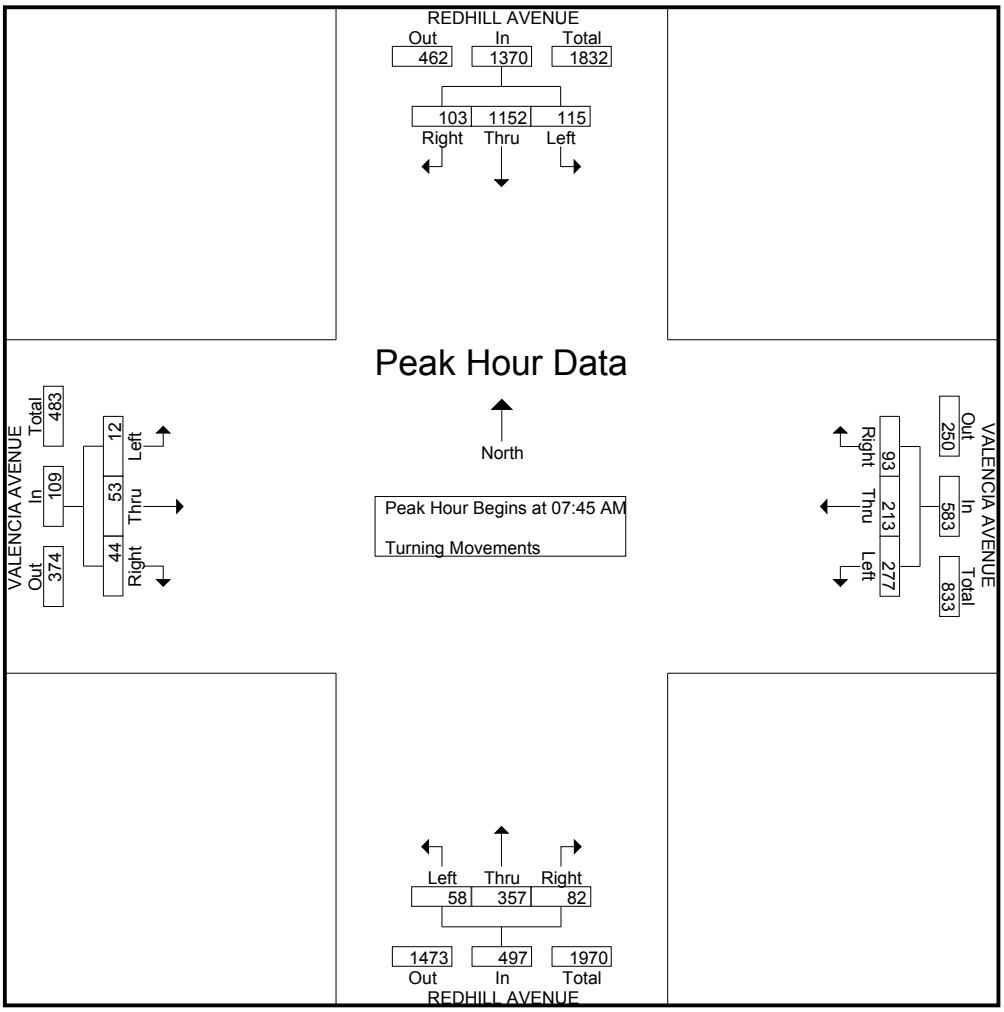
	REDHILL AVENUE Southbound			VALENCIA AVENUE Westbound			REDHILL AVENUE Northbound			VALENCIA AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	15	198	11	6	34	39	14	65	4	10	6	1	403
07:15 AM	17	220	9	18	31	36	16	60	3	15	8	4	437
07:30 AM	13	266	29	25	47	52	26	69	10	12	15	1	565
07:45 AM	16	325	36	29	54	81	22	88	12	10	17	1	691
Total	61	1009	85	78	166	208	78	282	29	47	46	7	2096
08:00 AM	20	275	43	26	67	62	22	93	23	15	13	6	665
08:15 AM	42	297	21	30	44	59	20	87	12	9	6	0	627
08:30 AM	25	255	15	8	48	75	18	89	11	10	17	5	576
08:45 AM	15	269	17	17	47	62	14	76	13	9	10	3	552
Total	102	1096	96	81	206	258	74	345	59	43	46	14	2420
*** BREAK ***													
04:00 PM	7	125	14	13	26	17	45	425	51	12	27	21	783
04:15 PM	5	97	7	14	39	39	41	433	54	8	18	18	773
04:30 PM	9	115	30	12	19	18	55	448	50	10	23	21	810
04:45 PM	8	111	14	11	11	28	74	449	41	11	28	14	800
Total	29	448	65	50	95	102	215	1755	196	41	96	74	3166
05:00 PM	14	117	23	13	13	31	73	448	48	18	39	5	842
05:15 PM	11	98	17	12	24	37	103	527	46	15	49	21	960
05:30 PM	9	112	21	12	8	23	110	534	52	14	35	13	943
05:45 PM	9	128	21	11	28	29	79	452	60	8	32	13	870
Total	43	455	82	48	73	120	365	1961	206	55	155	52	3615
Grand Total	235	3008	328	257	540	688	732	4343	490	186	343	147	11297
Apprch %	6.6	84.2	9.2	17.3	36.4	46.3	13.2	78	8.8	27.5	50.7	21.7	
Total %	2.1	26.6	2.9	2.3	4.8	6.1	6.5	38.4	4.3	1.6	3	1.3	

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

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: VALENCIA AVENUE

File Name : H1405079
Site Code : 00001944
Start Date : 6/10/2014
Page No : 2

	REDHILL AVENUE Southbound				VALENCIA AVENUE Westbound				REDHILL AVENUE Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	16	**325**	36	**377**	29	54	**81**	**164**	**22**	88	12	122	10	**17**	1	28	**691**
08:00 AM	20	275	**43**	338	26	**67**	62	155	22	**93**	**23**	**138**	**15**	13	**6**	**34**	665
08:15 AM	**42**	297	21	360	**30**	44	59	133	20	87	12	119	9	6	0	15	627
08:30 AM	25	255	15	295	8	48	75	131	18	89	11	118	10	17	5	32	576
Total Volume	103	1152	115	1370	93	213	277	583	82	357	58	497	44	53	12	109	2559
% App. Total	7.5	84.1	8.4		16	36.5	47.5		16.5	71.8	11.7		40.4	48.6	11		
PHF	.613	.886	.669	.908	.775	.795	.855	.889	.932	.960	.630	.900	.733	.779	.500	.801	.926

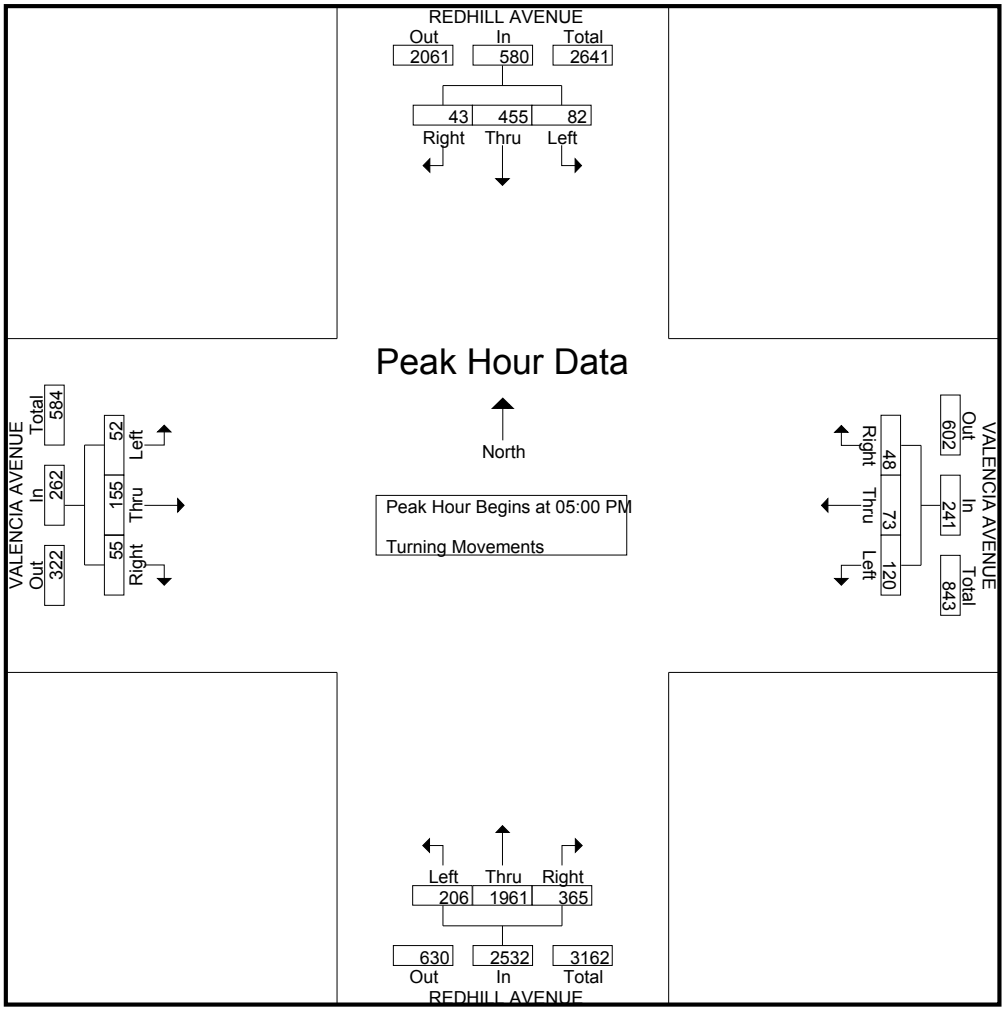


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: VALENCIA AVENUE

File Name : H1405079
Site Code : 00001944
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound				VALENCIA AVENUE Westbound				REDHILL AVENUE Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**14**	117	**23**	154	**13**	13	31	57	73	448	48	569	**18**	39	5	62	842
05:15 PM	11	98	17	126	12	24	**37**	**73**	103	527	46	676	15	**49**	**21**	**85**	**960**
05:30 PM	9	112	21	142	12	8	23	43	**110**	**534**	52	**696**	14	35	13	62	943
05:45 PM	9	**128**	21	**158**	11	**28**	29	68	79	452	**60**	591	8	32	13	53	870
Total Volume	43	455	82	580	48	73	120	241	365	1961	206	2532	55	155	52	262	3615
% App. Total	7.4	78.4	14.1		19.9	30.3	49.8		14.4	77.4	8.1		21	59.2	19.8		
PHF	.768	.889	.891	.918	.923	.652	.811	.825	.830	.918	.858	.909	.764	.791	.619	.771	.941



City: TUSTIN
N-S Direction: ARMSTRONG AVENUE
E-W Direction: VALENCIA AVENUE

File Name : H1405086
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

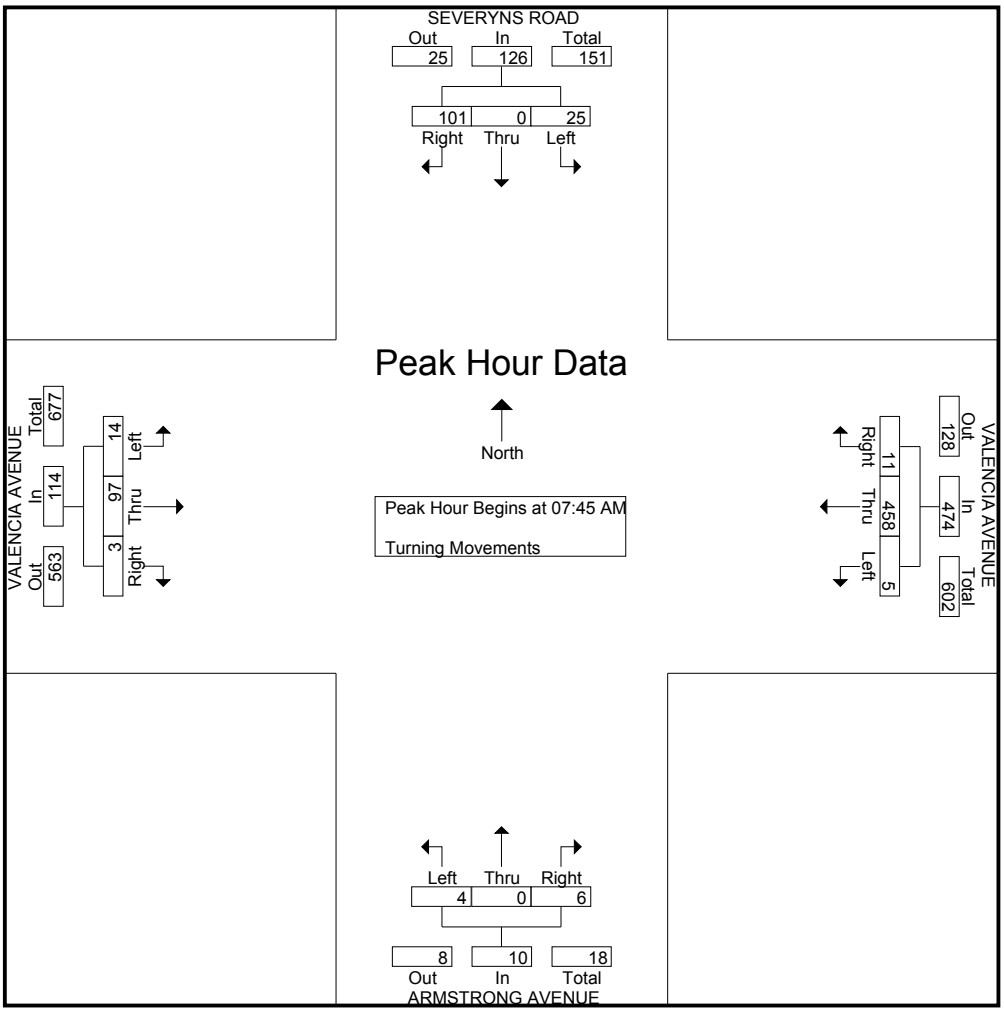
Groups Printed- Turning Movements

	SEVERYNS ROAD Southbound			VALENCIA AVENUE Westbound			ARMSTRONG AVENUE Northbound			VALENCIA AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	13	0	4	0	58	0	8	0	1	2	22	3	111
07:15 AM	15	0	3	1	91	0	7	0	0	4	19	3	143
07:30 AM	22	0	8	0	93	0	2	0	1	4	16	1	147
07:45 AM	33	0	7	2	145	2	1	0	0	2	38	2	232
Total	83	0	22	3	387	2	18	0	2	12	95	9	633
08:00 AM	20	0	6	1	115	2	2	0	2	0	25	4	177
08:15 AM	28	0	5	5	99	1	2	0	0	0	22	4	166
08:30 AM	20	0	7	3	99	0	1	0	2	1	12	4	149
08:45 AM	20	0	6	2	85	0	0	0	2	1	16	3	135
Total	88	0	24	11	398	3	5	0	6	2	75	15	627
*** BREAK ***													
04:00 PM	9	0	2	7	28	0	11	0	25	2	67	5	156
04:15 PM	6	0	1	5	39	0	3	0	26	1	85	10	176
04:30 PM	9	0	4	4	40	1	2	0	3	0	95	8	166
04:45 PM	6	1	3	7	34	0	0	0	1	2	93	12	159
Total	30	1	10	23	141	1	16	0	55	5	340	35	657
05:00 PM	6	0	4	2	40	0	0	1	0	2	155	13	223
05:15 PM	5	0	1	6	48	3	0	0	0	10	156	18	247
05:30 PM	6	2	3	9	42	0	0	0	1	20	134	18	235
05:45 PM	5	0	4	12	49	4	0	0	1	8	102	21	206
Total	22	2	12	29	179	7	0	1	2	40	547	70	911
Grand Total	223	3	68	66	1105	13	39	1	65	59	1057	129	2828
Apprch %	75.9	1	23.1	5.6	93.3	1.1	37.1	1	61.9	4.7	84.9	10.4	
Total %	7.9	0.1	2.4	2.3	39.1	0.5	1.4	0	2.3	2.1	37.4	4.6	

City: TUSTIN
N-S Direction: ARMSTRONG AVENUE
E-W Direction: VALENCIA AVENUE

File Name : H1405086
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	SEVERYNS ROAD Southbound				VALENCIA AVENUE Westbound				ARMSTRONG AVENUE Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**33**	0	**7**	**40**	2	**145**	**2**	**149**	1	0	0	1	**2**	**38**	2	**42**	**232**
08:00 AM	20	0	6	26	1	115	2	118	**2**	0	**2**	**4**	0	25	**4**	29	177
08:15 AM	28	0	5	33	**5**	99	1	105	2	0	0	2	0	22	4	26	166
08:30 AM	20	0	7	27	3	99	0	102	1	0	2	3	1	12	4	17	149
Total Volume	101	0	25	126	11	458	5	474	6	0	4	10	3	97	14	114	724
% App. Total	80.2	0	19.8		2.3	96.6	1.1		60	0	40		2.6	85.1	12.3		
PHF	.765	.000	.893	.788	.550	.790	.625	.795	.750	.000	.500	.625	.375	.638	.875	.679	.780

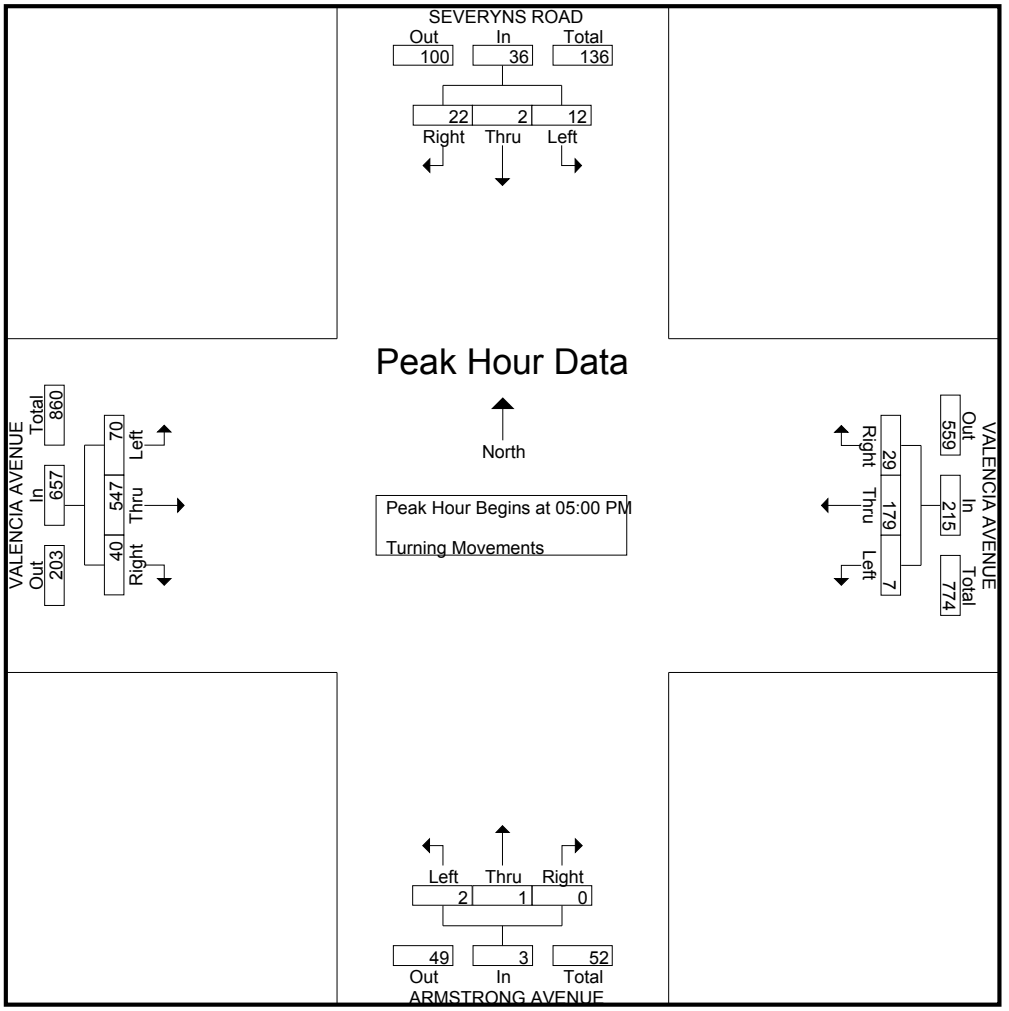


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: ARMSTRONG AVENUE
E-W Direction: VALENCIA AVENUE

File Name : H1405086
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	SEVERYNS ROAD Southbound				VALENCIA AVENUE Westbound				ARMSTRONG AVENUE Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**6**	0	**4**	10	2	40	0	42	0	**1**	0	**1**	2	155	13	170	223
05:15 PM	5	0	1	6	6	48	3	57	0	0	0	0	10	**156**	18	**184**	**247**
05:30 PM	6	**2**	3	**11**	9	42	0	51	0	0	**1**	1	**20**	134	18	172	235
05:45 PM	5	0	4	9	**12**	**49**	**4**	**65**	0	0	1	1	8	102	**21**	131	206
Total Volume	22	2	12	36	29	179	7	215	0	1	2	3	40	547	70	657	911
% App. Total	61.1	5.6	33.3		13.5	83.3	3.3		0	33.3	66.7		6.1	83.3	10.7		
PHF	.917	.250	.750	.818	.604	.913	.438	.827	.000	.250	.500	.750	.500	.877	.833	.893	.922



City: TUSTIN
N-S Direction: KENSINGTON DRIVE
E-W Direction: VALENCIA AVENUE

File Name : H1405085
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

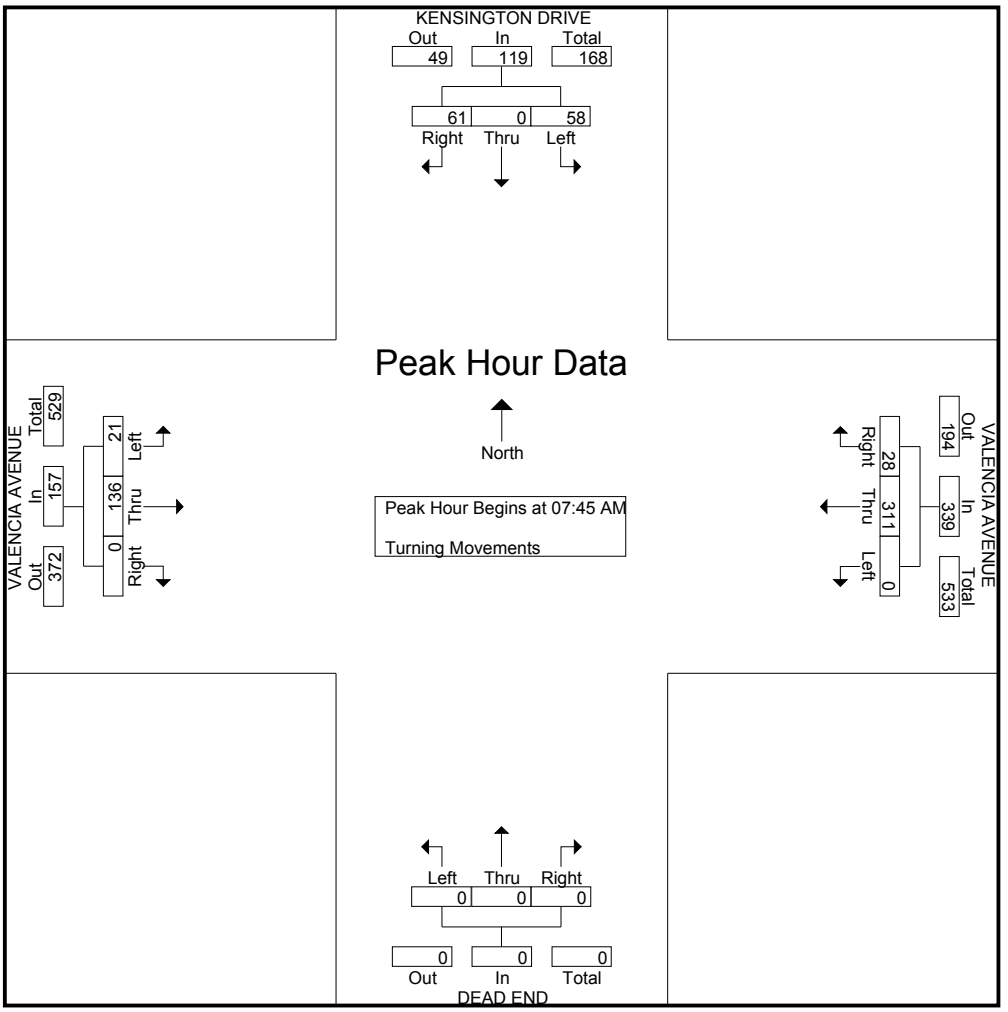
	KENSINGTON DRIVE Southbound			VALENCIA AVENUE Westbound			DEAD END Northbound			VALENCIA AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	9	0	11	3	32	0	0	0	0	0	32	6	93
07:15 AM	22	0	13	3	57	0	0	0	0	0	19	8	122
07:30 AM	18	0	21	7	59	0	0	0	0	0	34	3	142
07:45 AM	17	0	19	10	96	0	0	0	0	0	35	7	184
Total	66	0	64	23	244	0	0	0	0	0	120	24	541
08:00 AM	17	0	16	8	58	0	0	0	0	0	38	3	140
08:15 AM	18	0	12	4	78	0	0	0	0	0	26	5	143
08:30 AM	9	0	11	6	79	0	0	0	0	0	37	6	148
08:45 AM	12	0	13	11	75	0	0	0	0	0	32	4	147
Total	56	0	52	29	290	0	0	0	0	0	133	18	578
*** BREAK ***													
04:00 PM	6	0	11	21	31	0	0	0	0	0	51	15	135
04:15 PM	7	0	19	9	35	0	0	0	0	0	68	15	153
04:30 PM	6	0	13	15	41	0	0	0	0	0	80	21	176
04:45 PM	9	0	14	23	46	0	0	0	0	0	59	21	172
Total	28	0	57	68	153	0	0	0	0	0	258	72	636
05:00 PM	18	0	26	26	41	0	0	0	0	0	131	37	279
05:15 PM	23	0	29	25	47	0	0	0	0	0	102	31	257
05:30 PM	19	0	15	20	51	0	0	0	0	0	84	41	230
05:45 PM	18	0	20	25	36	0	0	0	0	0	79	32	210
Total	78	0	90	96	175	0	0	0	0	0	396	141	976
Grand Total	228	0	263	216	862	0	0	0	0	0	907	255	2731
Apprch %	46.4	0	53.6	20	80	0	0	0	0	0	78.1	21.9	
Total %	8.3	0	9.6	7.9	31.6	0	0	0	0	0	33.2	9.3	

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

City: TUSTIN
N-S Direction: KENSINGTON DRIVE
E-W Direction: VALENCIA AVENUE

File Name : H1405085
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	KENSINGTON DRIVE Southbound				VALENCIA AVENUE Westbound				DEAD END Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	17	0	**19**	**36**	**10**	**96**	0	**106**	0	0	0	0	0	35	**7**	42	**184**
08:00 AM	17	0	16	33	8	58	0	66	0	0	0	0	0	**38**	3	41	140
08:15 AM	**18**	0	12	30	4	78	0	82	0	0	0	0	0	26	5	31	143
08:30 AM	9	0	11	20	6	79	0	85	0	0	0	0	0	37	6	**43**	148
Total Volume	61	0	58	119	28	311	0	339	0	0	0	0	0	136	21	157	615
% App. Total	51.3	0	48.7		8.3	91.7	0		0	0	0		0	86.6	13.4		
PHF	.847	.000	.763	.826	.700	.810	.000	.800	.000	.000	.000	.000	.000	.895	.750	.913	.836

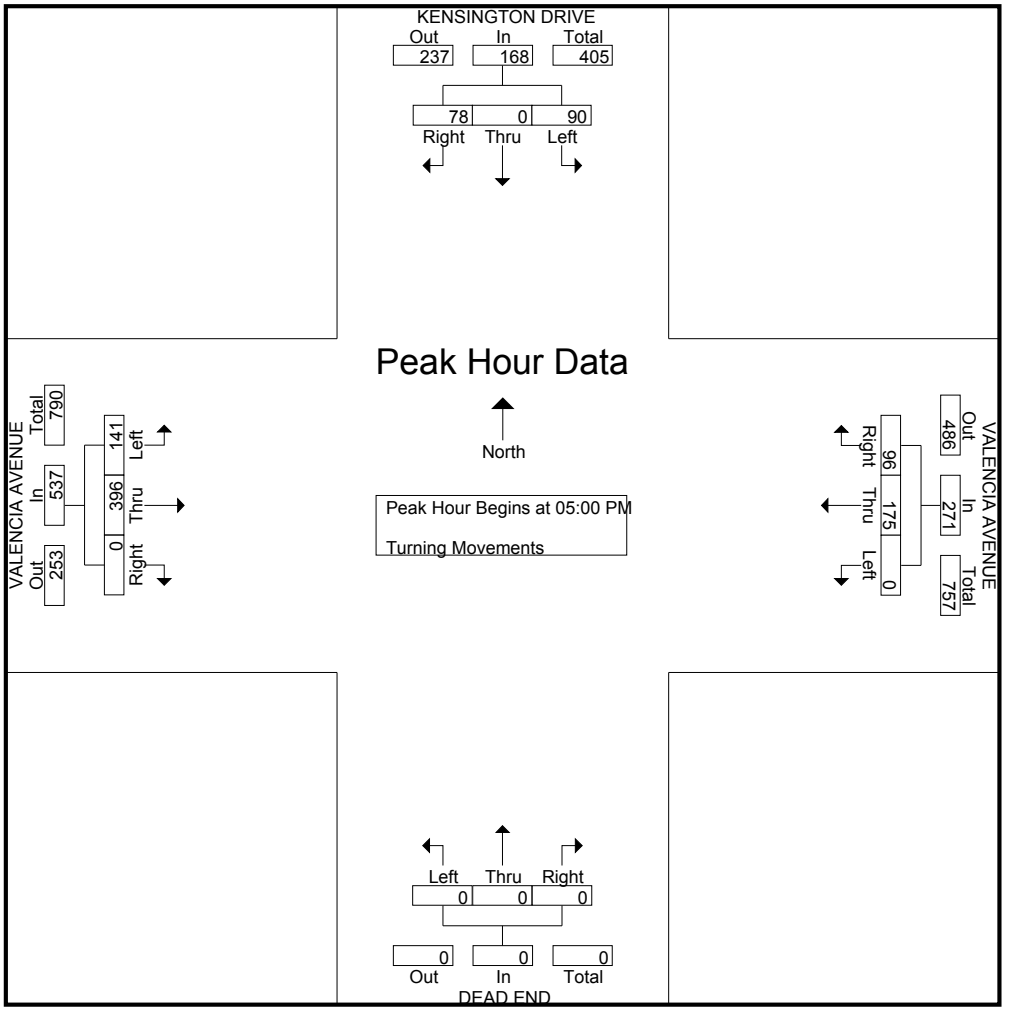


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: KENSINGTON DRIVE
E-W Direction: VALENCIA AVENUE

File Name : H1405085
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	KENSINGTON DRIVE Southbound				VALENCIA AVENUE Westbound				DEAD END Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	18	0	26	44	**26**	41	0	67	0	0	0	0	0	**131**	37	**168**	**279**
05:15 PM	**23**	0	**29**	**52**	25	47	0	**72**	0	0	0	0	0	102	31	133	257
05:30 PM	19	0	15	34	20	**51**	0	71	0	0	0	0	0	84	**41**	125	230
05:45 PM	18	0	20	38	25	36	0	61	0	0	0	0	0	79	32	111	210
Total Volume	78	0	90	168	96	175	0	271	0	0	0	0	0	396	141	537	976
% App. Total	46.4	0	53.6		35.4	64.6	0		0	0	0		0	73.7	26.3		
PHF	.848	.000	.776	.808	.923	.858	.000	.941	.000	.000	.000	.000	.000	.756	.860	.799	.875



City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: VALENCIA AVENUE

File Name : H1405081
Site Code : 00000554
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

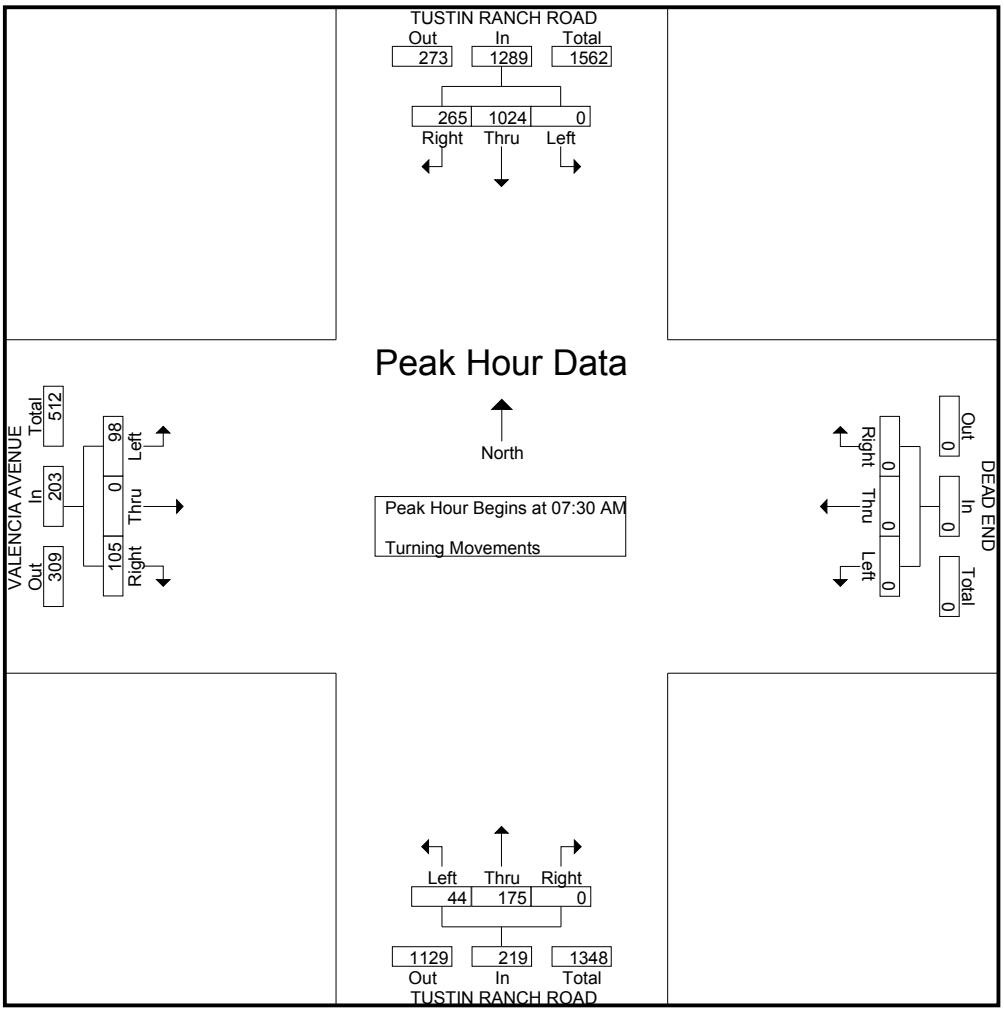
	TUSTIN RANCH ROAD Southbound			DEAD END Westbound			TUSTIN RANCH ROAD Northbound			VALENCIA AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	44	147	0	0	0	0	0	29	6	15	0	28	269
07:15 AM	33	175	0	0	0	0	0	31	6	12	0	22	279
07:30 AM	55	244	0	0	0	0	0	43	8	19	0	18	387
07:45 AM	77	299	0	0	0	0	0	42	15	37	0	23	493
Total	209	865	0	0	0	0	0	145	35	83	0	91	1428
08:00 AM	74	231	0	0	0	0	0	53	10	28	0	30	426
08:15 AM	59	250	0	0	0	0	0	37	11	21	0	27	405
08:30 AM	66	193	0	0	0	0	0	34	11	12	0	22	338
08:45 AM	71	228	0	0	0	0	0	38	9	25	0	22	393
Total	270	902	0	0	0	0	0	162	41	86	0	101	1562
*** BREAK ***													
04:00 PM	16	80	0	0	0	0	0	240	24	15	0	39	414
04:15 PM	14	90	0	0	0	0	0	309	30	21	0	58	522
04:30 PM	22	67	0	0	0	0	0	286	21	19	0	60	475
04:45 PM	19	90	0	0	0	0	0	302	35	18	0	82	546
Total	71	327	0	0	0	0	0	1137	110	73	0	239	1957
05:00 PM	31	103	0	0	0	0	0	323	32	16	0	83	588
05:15 PM	29	112	0	0	0	0	0	345	38	34	0	117	675
05:30 PM	30	106	0	0	0	0	0	319	32	20	0	77	584
05:45 PM	34	116	0	0	0	0	0	337	34	27	0	96	644
Total	124	437	0	0	0	0	0	1324	136	97	0	373	2491
Grand Total	674	2531	0	0	0	0	0	2768	322	339	0	804	7438
Apprch %	21	79	0	0	0	0	0	89.6	10.4	29.7	0	70.3	
Total %	9.1	34	0	0	0	0	0	37.2	4.3	4.6	0	10.8	

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

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: VALENCIA AVENUE

File Name : H1405081
Site Code : 00000554
Start Date : 6/12/2014
Page No : 2

	TUSTIN RANCH ROAD Southbound				DEAD END Westbound				TUSTIN RANCH ROAD Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	55	244	0	299	0	0	0	0	0	43	8	51	19	0	18	37	387
07:45 AM	**77**	**299**	0	**376**	0	0	0	0	0	42	**15**	57	**37**	0	23	**60**	**493**
08:00 AM	74	231	0	305	0	0	0	0	0	**53**	10	**63**	28	0	**30**	58	426
08:15 AM	59	250	0	309	0	0	0	0	0	37	11	48	21	0	27	48	405
Total Volume	265	1024	0	1289	0	0	0	0	0	175	44	219	105	0	98	203	1711
% App. Total	20.6	79.4	0		0	0	0		0	79.9	20.1		51.7	0	48.3		
PHF	.860	.856	.000	.857	.000	.000	.000	.000	.000	.825	.733	.869	.709	.000	.817	.846	.868

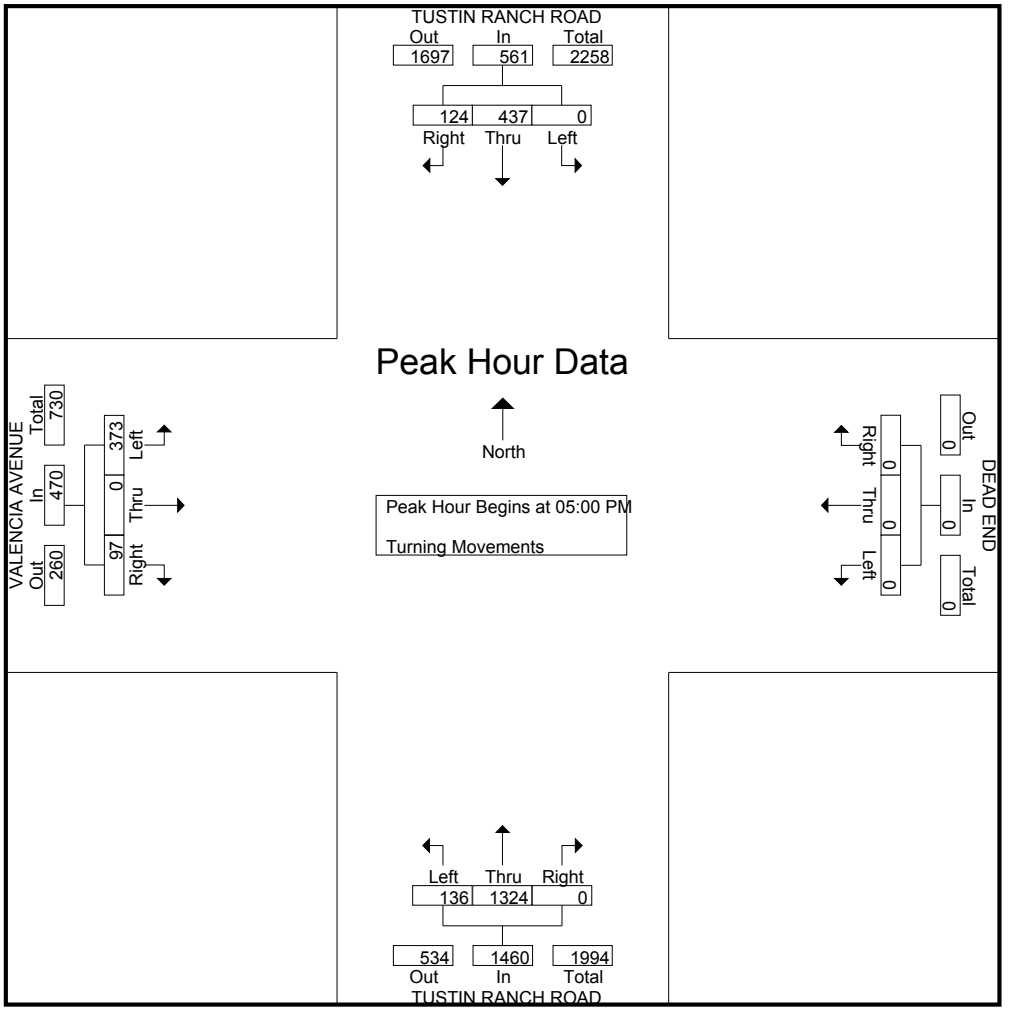


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: VALENCIA AVENUE

File Name : H1405081
Site Code : 00000554
Start Date : 6/12/2014
Page No : 3

	TUSTIN RANCH ROAD Southbound				DEAD END Westbound				TUSTIN RANCH ROAD Northbound				VALENCIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	31	103	0	134	0	0	0	0	0	323	32	355	16	0	83	99	588
05:15 PM	29	112	0	141	0	0	0	0	0	**345**	**38**	**383**	**34**	0	**117**	**151**	**675**
05:30 PM	30	106	0	136	0	0	0	0	0	319	32	351	20	0	77	97	584
05:45 PM	**34**	**116**	0	**150**	0	0	0	0	0	337	34	371	27	0	96	123	644
Total Volume	124	437	0	561	0	0	0	0	0	1324	136	1460	97	0	373	470	2491
% App. Total	22.1	77.9	0		0	0	0		0	90.7	9.3		20.6	0	79.4		
PHF	.912	.942	.000	.935	.000	.000	.000	.000	.000	.959	.895	.953	.713	.000	.797	.778	.923



City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405072
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

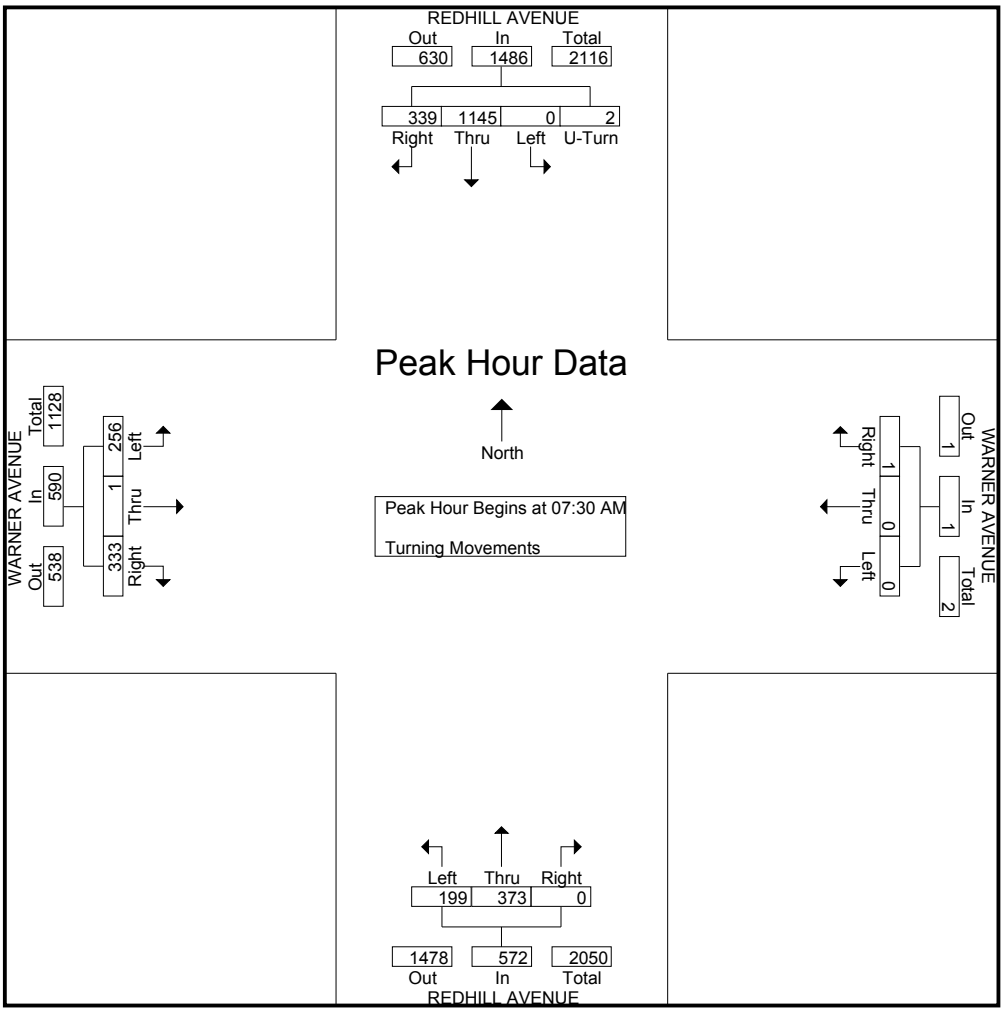
	REDHILL AVENUE Southbound				WARNER AVENUE Westbound			REDHILL AVENUE Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	59	153	1	0	0	0	0	0	56	26	50	0	51	396
07:15 AM	71	184	0	0	0	0	0	0	54	33	60	0	47	449
07:30 AM	80	227	0	0	0	0	0	0	79	48	88	0	76	598
07:45 AM	95	301	0	0	1	0	0	0	119	61	103	1	61	742
Total	305	865	1	0	1	0	0	0	308	168	301	1	235	2185
08:00 AM	80	313	0	2	0	0	0	0	95	50	64	0	59	663
08:15 AM	84	304	0	0	0	0	0	0	80	40	78	0	60	646
08:30 AM	72	262	0	1	0	0	0	0	87	38	67	0	40	567
08:45 AM	69	246	0	0	0	0	0	0	85	40	64	0	40	544
Total	305	1125	0	3	0	0	0	0	347	168	273	0	199	2420
*** BREAK ***														
04:00 PM	67	117	0	3	0	0	0	0	455	120	45	0	103	910
04:15 PM	70	112	0	0	0	0	0	0	444	78	48	0	79	831
04:30 PM	104	126	0	1	0	0	0	0	441	130	55	0	133	990
04:45 PM	62	132	0	3	0	0	0	0	505	104	55	0	90	951
Total	303	487	0	7	0	0	0	0	1845	432	203	0	405	3682
05:00 PM	103	144	0	5	0	0	0	0	491	163	76	0	138	1120
05:15 PM	70	123	0	5	0	0	0	0	512	147	59	0	139	1055
05:30 PM	83	126	0	0	0	0	0	0	522	107	70	0	106	1014
05:45 PM	55	141	0	2	0	0	0	0	513	113	46	0	76	946
Total	311	534	0	12	0	0	0	0	2038	530	251	0	459	4135
Grand Total	1224	3011	1	22	1	0	0	0	4538	1298	1028	1	1298	12422
Apprch %	28.7	70.7	0	0.5	100	0	0	0	77.8	22.2	44.2	0	55.8	
Total %	9.9	24.2	0	0.2	0	0	0	0	36.5	10.4	8.3	0	10.4	

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

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405072
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

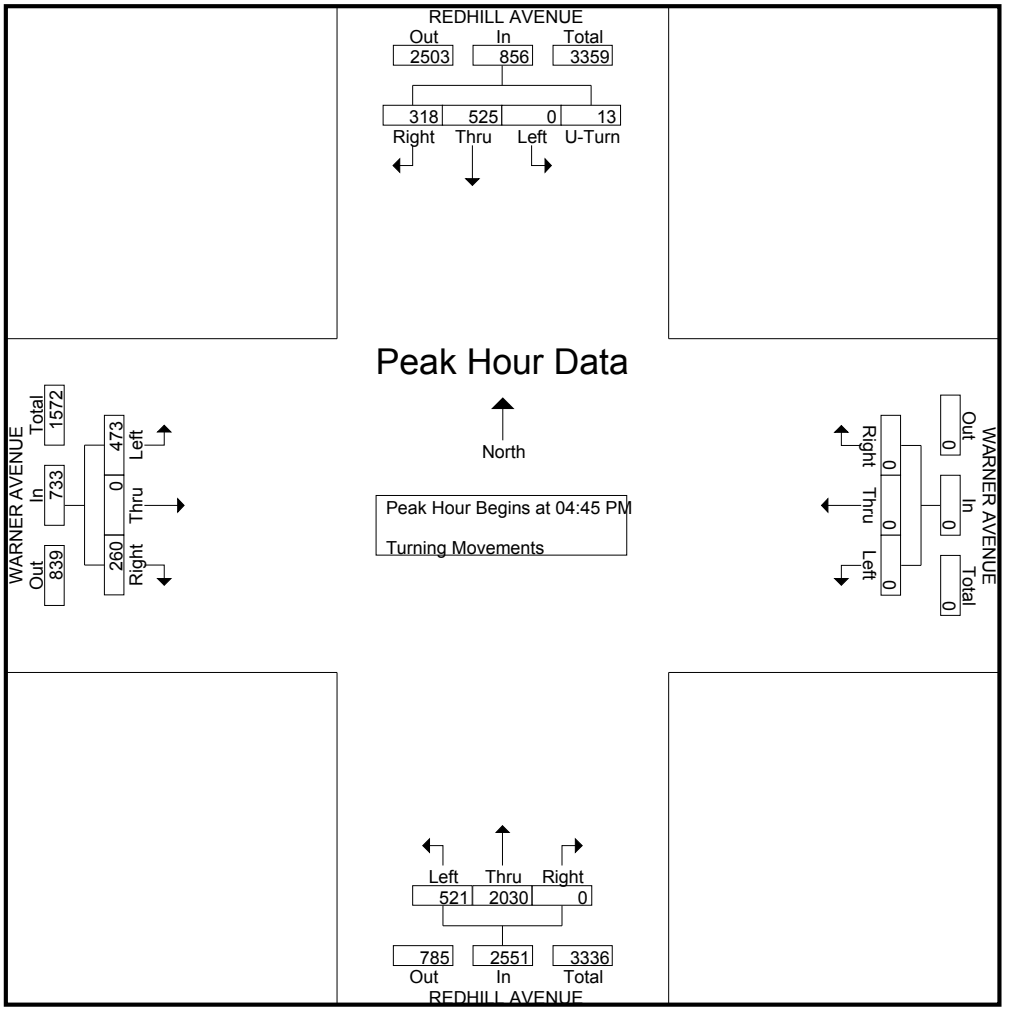
	REDHILL AVENUE Southbound					WARNER AVENUE Westbound				REDHILL AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	80	227	0	0	307	0	0	0	0	0	79	48	127	88	0	**76**	164	598
07:45 AM	**95**	301	0	0	**396**	**1**	0	0	**1**	0	**119**	**61**	**180**	**103**	**1**	61	**165**	**742**
08:00 AM	80	**313**	0	**2**	395	0	0	0	0	0	95	50	145	64	0	59	123	663
08:15 AM	84	304	0	0	388	0	0	0	0	0	80	40	120	78	0	60	138	646
Total Volume	339	1145	0	2	1486	1	0	0	1	0	373	199	572	333	1	256	590	2649
% App. Total	22.8	77.1	0	0.1		100	0	0		0	65.2	34.8		56.4	0.2	43.4		
PHF	.892	.915	.000	.250	.938	.250	.000	.000	.250	.000	.784	.816	.794	.808	.250	.842	.894	.893



City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405072
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound					WARNER AVENUE Westbound				REDHILL AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	62	132	0	3	197	0	0	0	0	0	505	104	609	55	0	90	145	951
05:00 PM	**103**	**144**	0	**5**	**252**	0	0	0	0	0	491	**163**	654	**76**	0	138	**214**	**1120**
05:15 PM	70	123	0	5	198	0	0	0	0	0	512	147	**659**	59	0	**139**	198	1055
05:30 PM	83	126	0	0	209	0	0	0	0	0	**522**	107	629	70	0	106	176	1014
Total Volume	318	525	0	13	856	0	0	0	0	0	2030	521	2551	260	0	473	733	4140
% App. Total	37.1	61.3	0	1.5		0	0	0		0	79.6	20.4		35.5	0	64.5		
PHF	.772	.911	.000	.650	.849	.000	.000	.000	.000	.000	.972	.799	.968	.855	.000	.851	.856	.924



City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: WARNER AVENUE

File Name : H1405082
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

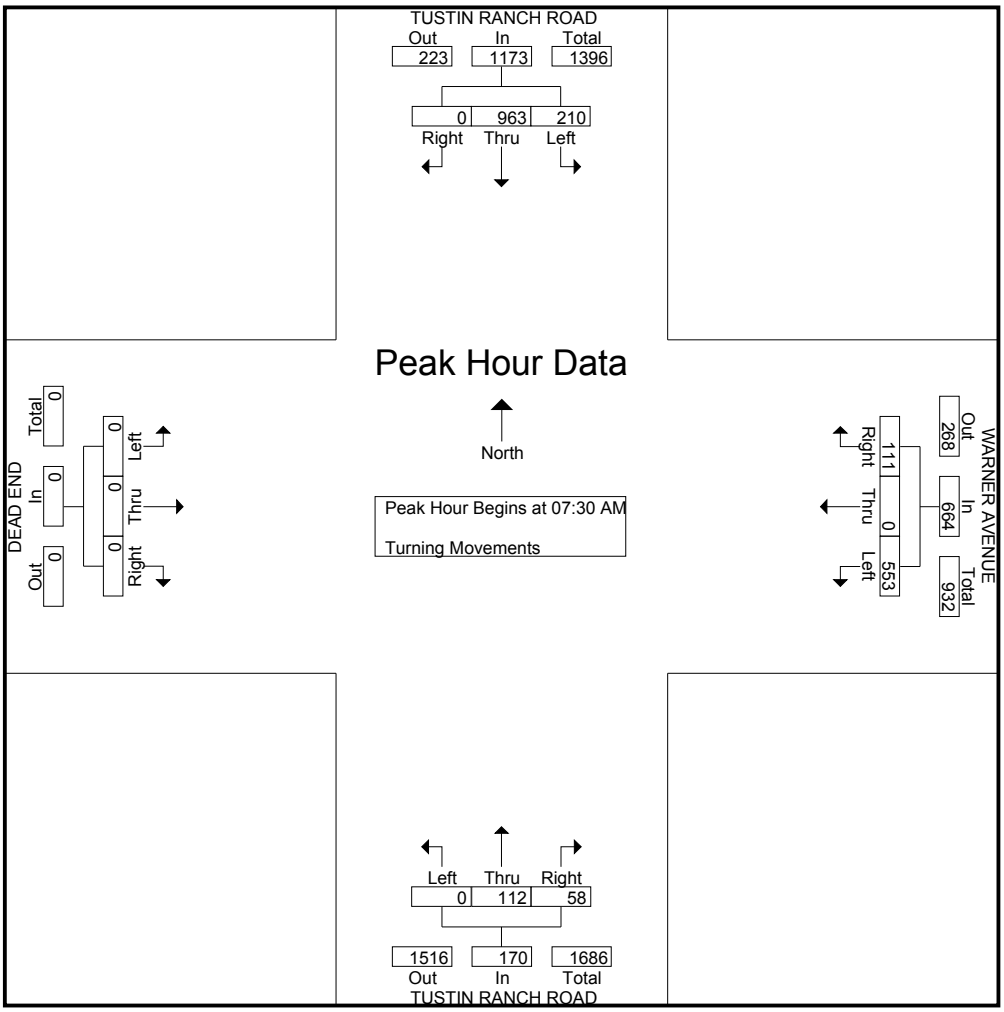
Groups Printed- Turning Movements

	TUSTIN RANCH ROAD Southbound			WARNER AVENUE Westbound			TUSTIN RANCH ROAD Northbound			DEAD END Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	125	42	16	0	73	15	13	0	0	0	0	284
07:15 AM	0	181	30	26	0	99	11	28	0	0	0	0	375
07:30 AM	0	260	67	29	0	124	11	17	0	0	0	0	508
07:45 AM	0	252	61	24	0	171	20	43	0	0	0	0	571
Total	0	818	200	95	0	467	57	101	0	0	0	0	1738
08:00 AM	0	234	43	22	0	131	14	27	0	0	0	0	471
08:15 AM	0	217	39	36	0	127	13	25	0	0	0	0	457
08:30 AM	0	192	31	20	0	110	16	41	0	0	0	0	410
08:45 AM	0	180	32	16	0	102	14	28	0	0	0	0	372
Total	0	823	145	94	0	470	57	121	0	0	0	0	1710
*** BREAK ***													
04:00 PM	0	75	31	57	0	36	98	225	0	0	0	0	522
04:15 PM	0	59	42	54	0	34	82	239	0	0	0	0	510
04:30 PM	0	47	43	74	0	45	94	232	0	0	0	0	535
04:45 PM	0	53	40	65	0	40	106	323	0	0	0	0	627
Total	0	234	156	250	0	155	380	1019	0	0	0	0	2194
05:00 PM	0	82	51	100	0	51	117	286	0	0	0	0	687
05:15 PM	0	96	58	97	0	39	123	288	0	0	0	0	701
05:30 PM	0	86	58	87	0	46	128	293	0	0	0	0	698
05:45 PM	0	76	56	76	0	41	89	229	0	0	0	0	567
Total	0	340	223	360	0	177	457	1096	0	0	0	0	2653
Grand Total	0	2215	724	799	0	1269	951	2337	0	0	0	0	8295
Apprch %	0	75.4	24.6	38.6	0	61.4	28.9	71.1	0	0	0	0	
Total %	0	26.7	8.7	9.6	0	15.3	11.5	28.2	0	0	0	0	

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: WARNER AVENUE

File Name : H1405082
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

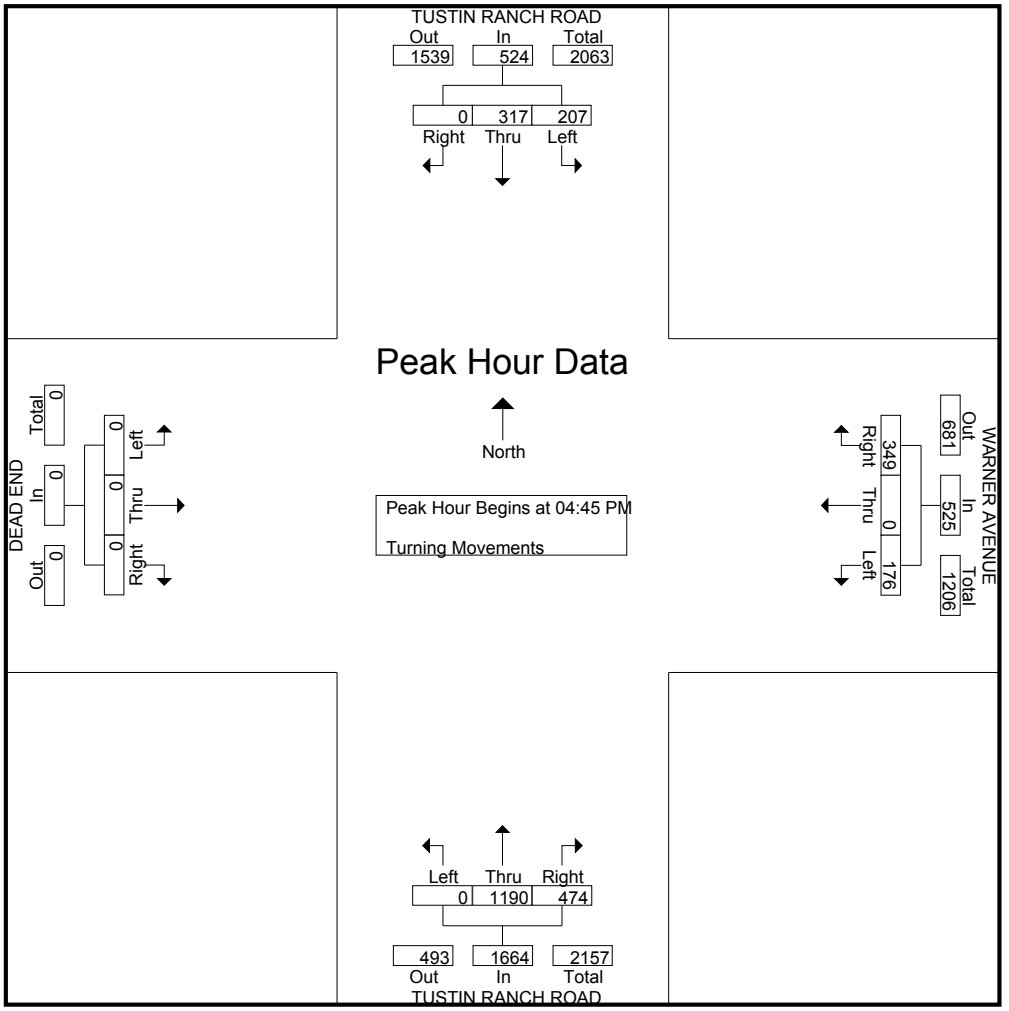
	TUSTIN RANCH ROAD Southbound				WARNER AVENUE Westbound				TUSTIN RANCH ROAD Northbound				DEAD END Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	**260**	**67**	**327**	29	0	124	153	11	17	0	28	0	0	0	0	508
07:45 AM	0	252	61	313	24	0	**171**	**195**	**20**	**43**	0	**63**	0	0	0	0	**571**
08:00 AM	0	234	43	277	22	0	131	153	14	27	0	41	0	0	0	0	471
08:15 AM	0	217	39	256	**36**	0	127	163	13	25	0	38	0	0	0	0	457
Total Volume	0	963	210	1173	111	0	553	664	58	112	0	170	0	0	0	0	2007
% App. Total	0	82.1	17.9		16.7	0	83.3		34.1	65.9	0		0	0	0		
PHF	.000	.926	.784	.897	.771	.000	.808	.851	.725	.651	.000	.675	.000	.000	.000	.000	.879



City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: WARNER AVENUE

File Name : H1405082
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	TUSTIN RANCH ROAD Southbound				WARNER AVENUE Westbound				TUSTIN RANCH ROAD Northbound				DEAD END Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	53	40	93	65	0	40	105	106	**323**	0	**429**	0	0	0	0	627
05:00 PM	0	82	51	133	**100**	0	**51**	**151**	117	286	0	403	0	0	0	0	687
05:15 PM	0	**96**	**58**	**154**	97	0	39	136	123	288	0	411	0	0	0	0	**701**
05:30 PM	0	86	58	144	87	0	46	133	**128**	293	0	421	0	0	0	0	698
Total Volume	0	317	207	524	349	0	176	525	474	1190	0	1664	0	0	0	0	2713
% App. Total	0	60.5	39.5		66.5	0	33.5		28.5	71.5	0		0	0	0		
PHF	.000	.826	.892	.851	.873	.000	.863	.869	.926	.921	.000	.970	.000	.000	.000	.000	.968



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

City: TUSTIN
N-S Direction: PARK AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405087
Site Code : 00000562
Start Date : 6/3/2014
Page No : 1

Groups Printed- Turning Movements

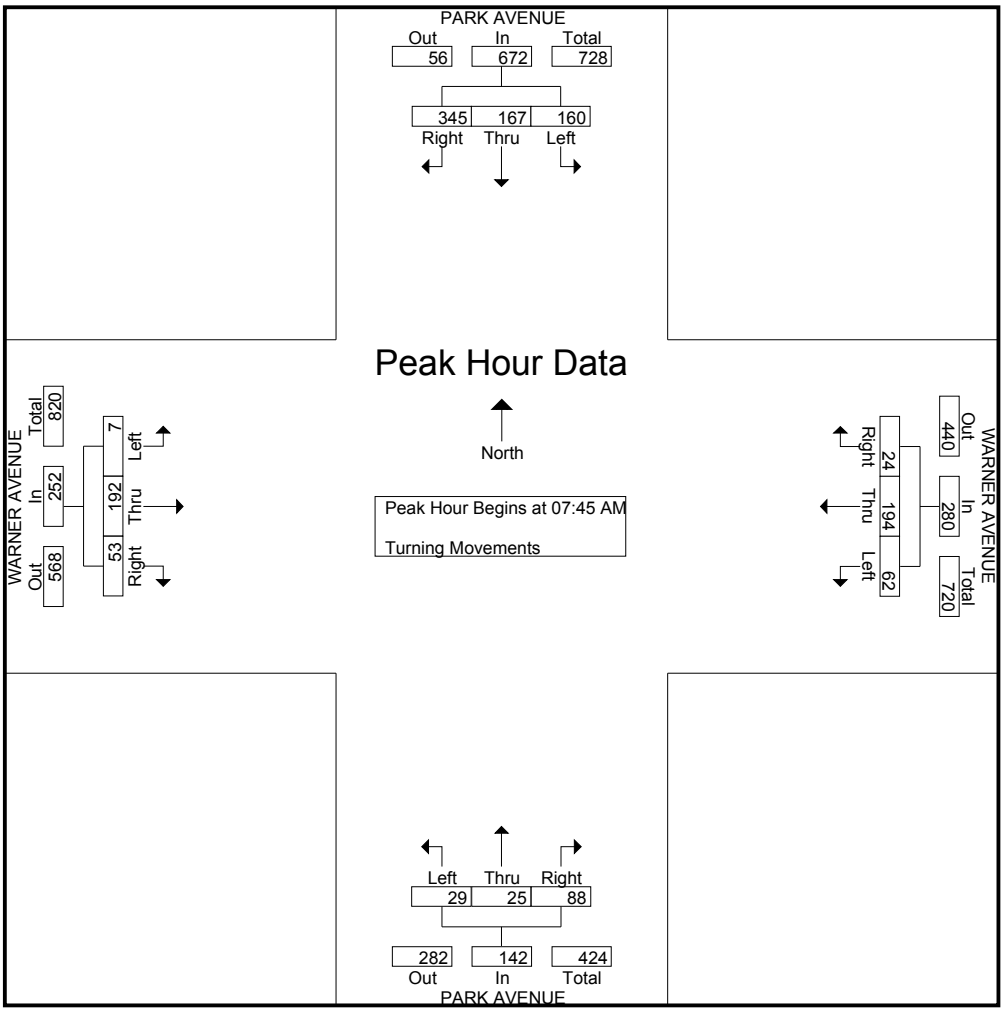
	PARK AVENUE Southbound			WARNER AVENUE Westbound			PARK AVENUE Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	53	31	28	1	29	21	20	7	10	3	31	1	235
07:15 AM	48	46	25	6	26	12	25	6	9	17	42	4	266
07:30 AM	80	42	30	6	29	8	21	2	3	10	24	1	256
07:45 AM	85	54	38	3	49	11	14	6	6	21	46	3	336
Total	266	173	121	16	133	52	80	21	28	51	143	9	1093
08:00 AM	96	44	40	10	55	14	30	8	9	11	51	3	371
08:15 AM	91	33	35	7	45	17	19	6	4	13	54	0	324
08:30 AM	73	36	47	4	45	20	25	5	10	8	41	1	315
08:45 AM	82	43	40	6	41	15	22	6	8	16	36	1	316
Total	342	156	162	27	186	66	96	25	31	48	182	5	1326
*** BREAK ***													
04:00 PM	6	61	36	5	30	47	82	9	14	14	117	0	421
04:15 PM	7	57	33	8	56	43	81	7	18	23	118	5	456
04:30 PM	6	54	45	9	43	40	75	10	17	14	94	3	410
04:45 PM	15	79	42	4	84	44	72	7	23	19	136	4	529
Total	34	251	156	26	213	174	310	33	72	70	465	12	1816
05:00 PM	7	50	43	5	58	48	80	15	17	16	110	3	452
05:15 PM	9	51	44	3	80	41	95	7	21	21	150	7	529
05:30 PM	12	69	54	2	72	52	65	14	29	20	132	2	523
05:45 PM	5	64	54	4	69	41	89	6	26	25	138	2	523
Total	33	234	195	14	279	182	329	42	93	82	530	14	2027
Grand Total	675	814	634	83	811	474	815	121	224	251	1320	40	6262
Apprch %	31.8	38.3	29.9	6.1	59.3	34.6	70.3	10.4	19.3	15.6	81.9	2.5	
Total %	10.8	13	10.1	1.3	13	7.6	13	1.9	3.6	4	21.1	0.6	

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

City: TUSTIN
N-S Direction: PARK AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405087
Site Code : 00000562
Start Date : 6/3/2014
Page No : 2

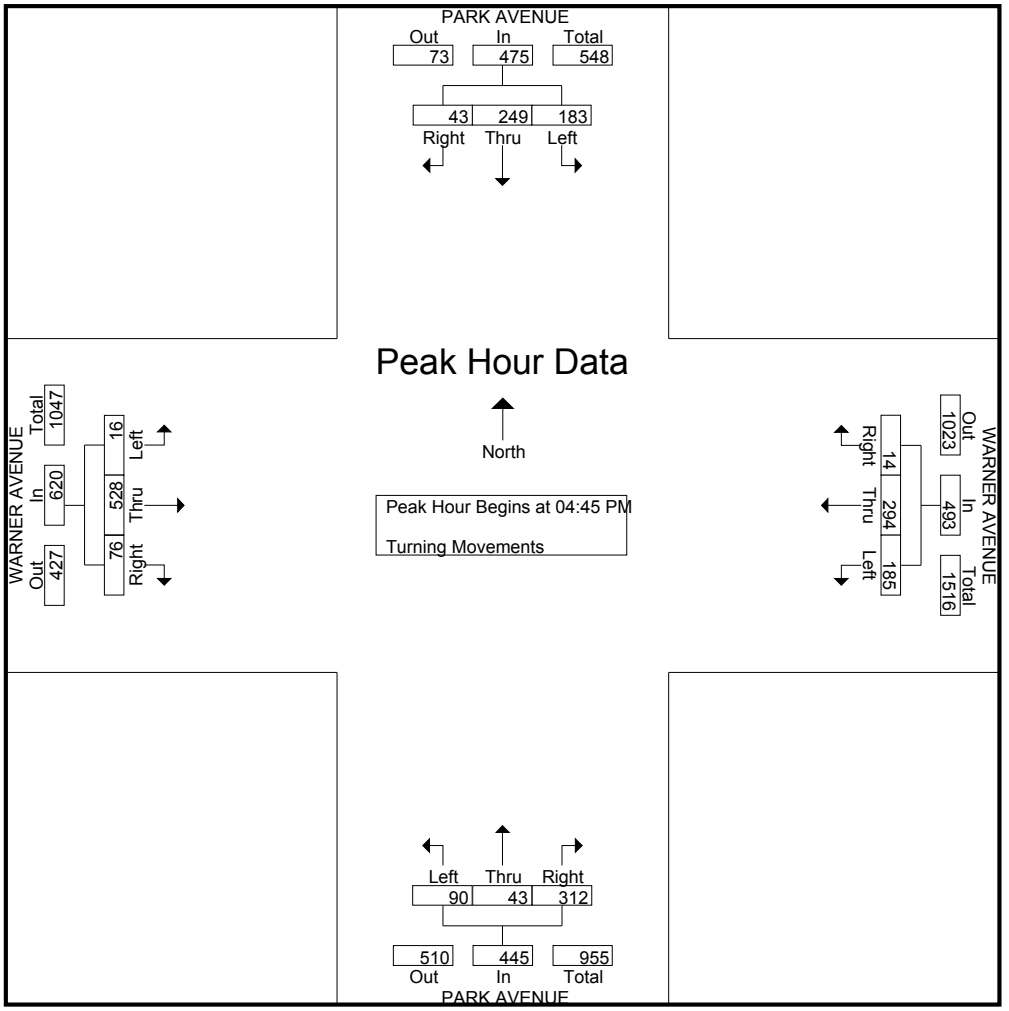
	PARK AVENUE Southbound				WARNER AVENUE Westbound				PARK AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	85	**54**	38	177	3	49	11	63	14	6	6	26	**21**	46	**3**	**70**	336
08:00 AM	**96**	44	40	**180**	**10**	**55**	14	**79**	**30**	**8**	9	**47**	11	51	3	65	**371**
08:15 AM	91	33	35	159	7	45	17	69	19	6	4	29	13	**54**	0	67	324
08:30 AM	73	36	**47**	156	4	45	**20**	69	25	5	**10**	40	8	41	1	50	315
Total Volume	345	167	160	672	24	194	62	280	88	25	29	142	53	192	7	252	1346
% App. Total	51.3	24.9	23.8		8.6	69.3	22.1		62	17.6	20.4		21	76.2	2.8		
PHF	.898	.773	.851	.933	.600	.882	.775	.886	.733	.781	.725	.755	.631	.889	.583	.900	.907



City: TUSTIN
N-S Direction: PARK AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405087
Site Code : 00000562
Start Date : 6/3/2014
Page No : 3

	PARK AVENUE Southbound				WARNER AVENUE Westbound				PARK AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**15**	**79**	42	**136**	4	**84**	44	**132**	72	7	23	102	19	136	4	159	**529**
05:00 PM	7	50	43	100	**5**	58	48	111	80	**15**	17	112	16	110	3	129	452
05:15 PM	9	51	44	104	3	80	41	124	**95**	7	21	**123**	**21**	**150**	**7**	**178**	529
05:30 PM	12	69	**54**	135	2	72	**52**	126	65	14	**29**	108	20	132	2	154	523
Total Volume	43	249	183	475	14	294	185	493	312	43	90	445	76	528	16	620	2033
% App. Total	9.1	52.4	38.5		2.8	59.6	37.5		70.1	9.7	20.2		12.3	85.2	2.6		
PHF	.717	.788	.847	.873	.700	.875	.889	.934	.821	.717	.776	.904	.905	.880	.571	.871	.961



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

City: IRVINE
N-S Direction: JAMBOREE ROAD NB
E-W Direction: WARNER AVENUE

File Name : H1404046
Site Code : 135
Start Date : 5/20/2014
Page No : 1

Groups Printed- Turning Movements

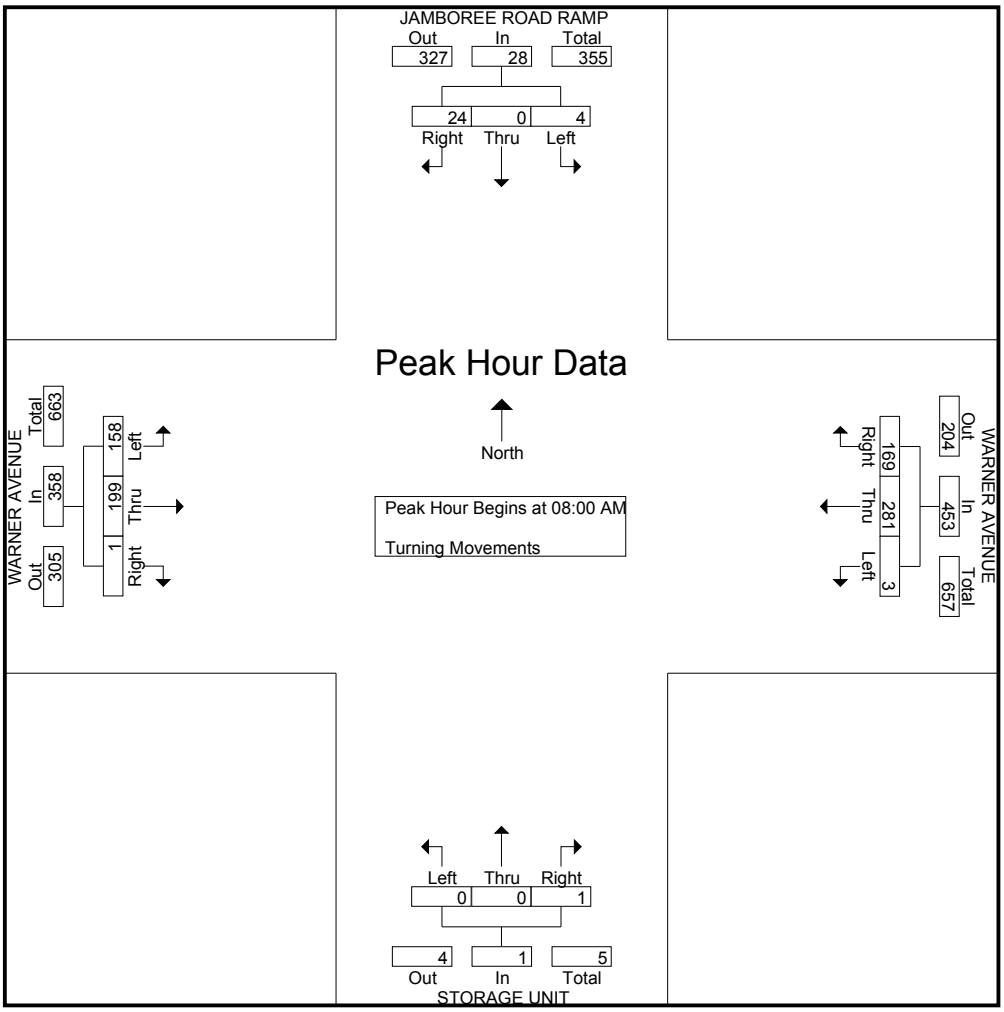
	JAMBOREE ROAD RAMP Southbound			WARNER AVENUE Westbound			STORAGE UNIT Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	0	1	22	33	2	0	1	0	0	28	35	124
07:15 AM	1	0	0	25	41	1	0	0	0	0	43	56	167
07:30 AM	3	0	1	46	39	0	0	0	0	0	46	38	173
07:45 AM	1	0	0	38	67	1	1	0	0	0	57	32	197
Total	7	0	2	131	180	4	1	1	0	0	174	161	661
08:00 AM	8	0	0	36	74	0	0	0	0	0	49	33	200
08:15 AM	4	0	1	45	64	1	0	0	0	0	60	35	210
08:30 AM	6	0	2	41	60	2	1	0	0	1	43	50	206
08:45 AM	6	0	1	47	83	0	0	0	0	0	47	40	224
Total	24	0	4	169	281	3	1	0	0	1	199	158	840
*** BREAK ***													
04:00 PM	16	0	2	28	59	1	0	2	0	0	116	124	348
04:15 PM	12	0	4	38	65	0	1	0	0	1	129	118	368
04:30 PM	12	0	2	40	80	0	1	0	0	0	138	131	404
04:45 PM	18	0	3	41	79	0	0	0	0	0	119	154	414
Total	58	0	11	147	283	1	2	2	0	1	502	527	1534
05:00 PM	16	0	0	40	97	2	0	0	0	0	143	137	435
05:15 PM	17	2	0	50	110	1	0	0	0	0	136	159	475
05:30 PM	23	0	1	38	103	2	3	0	0	0	138	166	474
05:45 PM	14	0	1	43	116	0	1	0	0	1	157	145	478
Total	70	2	2	171	426	5	4	0	0	1	574	607	1862
Grand Total	159	2	19	618	1170	13	8	3	0	3	1449	1453	4897
Apprch %	88.3	1.1	10.6	34.3	65	0.7	72.7	27.3	0	0.1	49.9	50	
Total %	3.2	0	0.4	12.6	23.9	0.3	0.2	0.1	0	0.1	29.6	29.7	

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

City: IRVINE
N-S Direction: JAMBOREE ROAD NB
E-W Direction: WARNER AVENUE

File Name : H1404046
Site Code : 135
Start Date : 5/20/2014
Page No : 2

	JAMBOREE ROAD RAMP Southbound				WARNER AVENUE Westbound				STORAGE UNIT Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**8**	0	0	**8**	36	74	0	110	0	0	0	0	0	49	33	82	200
08:15 AM	4	0	1	5	45	64	1	110	0	0	0	0	0	**60**	35	**95**	210
08:30 AM	6	0	**2**	8	41	60	**2**	103	**1**	0	0	**1**	**1**	43	**50**	94	206
08:45 AM	6	0	1	7	**47**	**83**	0	**130**	0	0	0	0	0	47	40	87	**224**
Total Volume	24	0	4	28	169	281	3	453	1	0	0	1	1	199	158	358	840
% App. Total	85.7	0	14.3		37.3	62	0.7		100	0	0		0.3	55.6	44.1		
PHF	.750	.000	.500	.875	.899	.846	.375	.871	.250	.000	.000	.250	.250	.829	.790	.942	.938

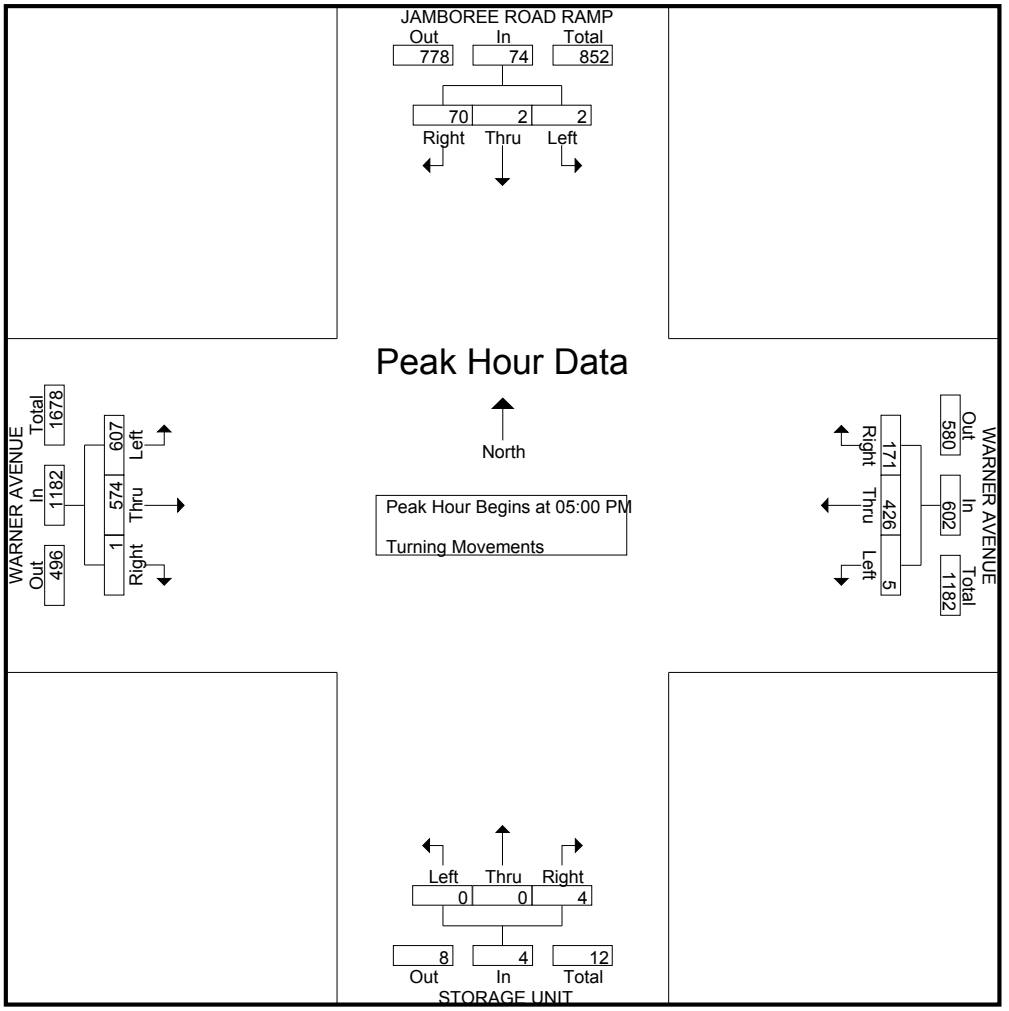


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: JAMBOREE ROAD NB
E-W Direction: WARNER AVENUE

File Name : H1404046
Site Code : 135
Start Date : 5/20/2014
Page No : 3

	JAMBOREE ROAD RAMP Southbound				WARNER AVENUE Westbound				STORAGE UNIT Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	16	0	0	16	40	97	**2**	139	0	0	0	0	0	143	137	280	435
05:15 PM	17	**2**	0	19	**50**	110	1	**161**	0	0	0	0	0	136	159	295	475
05:30 PM	**23**	0	**1**	**24**	38	103	2	143	**3**	0	0	**3**	0	138	**166**	**304**	474
05:45 PM	14	0	1	15	43	**116**	0	159	1	0	0	1	**1**	**157**	145	303	**478**
Total Volume	70	2	2	74	171	426	5	602	4	0	0	4	1	574	607	1182	1862
% App. Total	94.6	2.7	2.7		28.4	70.8	0.8		100	0	0		0.1	48.6	51.4		
PHF	.761	.250	.500	.771	.855	.918	.625	.935	.333	.000	.000	.333	.250	.914	.914	.972	.974



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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405099
Site Code : 00005724
Start Date : 6/11/2014
Page No : 1

Groups Printed- Turning Movements

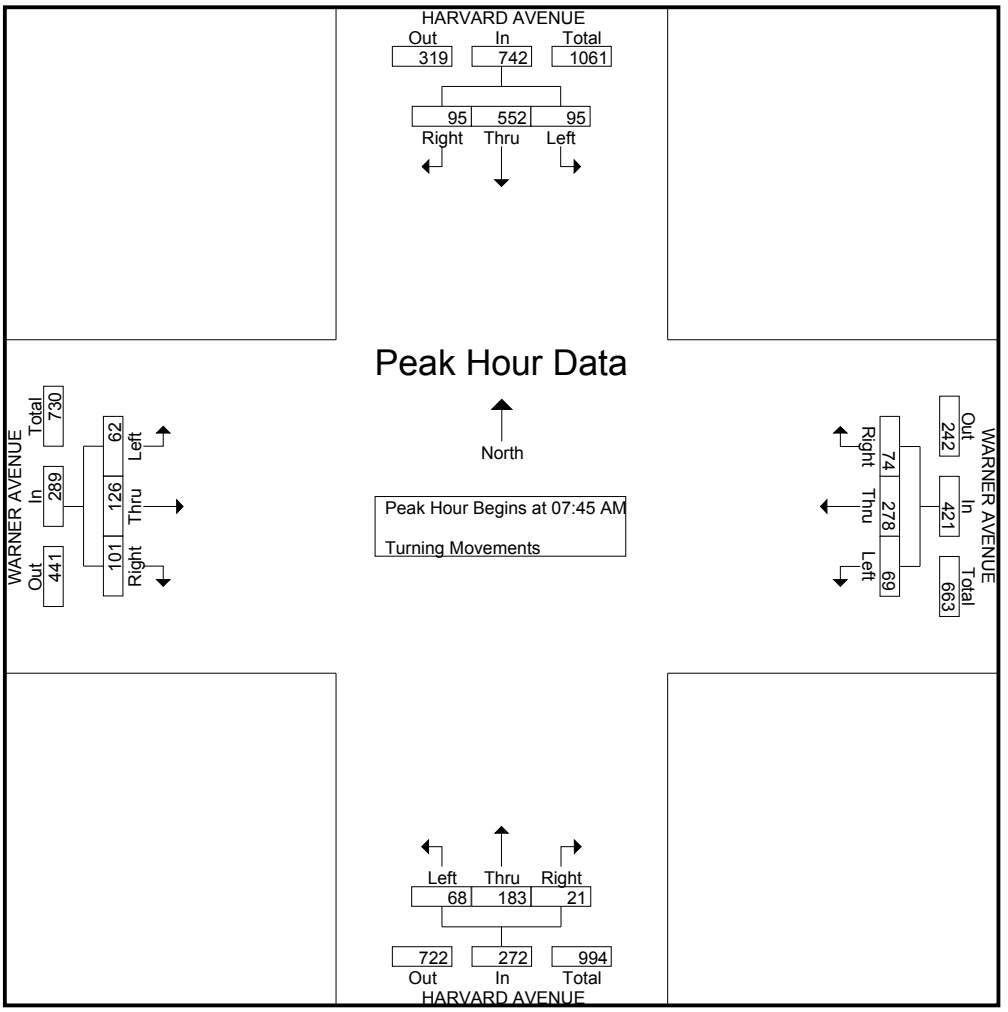
	HARVARD AVENUE Southbound			WARNER AVENUE Westbound			HARVARD AVENUE Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	8	46	4	3	53	7	1	19	9	8	15	14	187
07:15 AM	17	46	9	6	46	7	3	25	8	14	27	16	224
07:30 AM	19	95	17	5	44	6	7	43	17	19	21	18	311
07:45 AM	28	149	35	18	58	14	5	44	15	36	40	17	459
Total	72	336	65	32	201	34	16	131	49	77	103	65	1181
08:00 AM	29	156	41	25	78	19	5	44	21	29	44	16	507
08:15 AM	21	147	12	24	75	22	5	50	14	17	16	12	415
08:30 AM	17	100	7	7	67	14	6	45	18	19	26	17	343
08:45 AM	21	106	10	12	64	11	9	54	18	12	26	8	351
Total	88	509	70	68	284	66	25	193	71	77	112	53	1616
*** BREAK ***													
04:00 PM	7	58	10	7	45	4	16	82	35	20	68	24	376
04:15 PM	13	51	7	9	49	8	18	119	50	29	73	31	457
04:30 PM	13	63	7	8	44	9	13	112	41	19	75	42	446
04:45 PM	17	49	10	8	81	13	25	135	69	25	85	32	549
Total	50	221	34	32	219	34	72	448	195	93	301	129	1828
05:00 PM	17	61	9	8	55	11	16	161	74	19	75	29	535
05:15 PM	12	74	18	12	93	13	19	179	82	24	88	50	664
05:30 PM	12	72	15	10	56	5	27	206	87	23	78	36	627
05:45 PM	13	73	20	14	71	11	31	200	86	19	111	35	684
Total	54	280	62	44	275	40	93	746	329	85	352	150	2510
Grand Total	264	1346	231	176	979	174	206	1518	644	332	868	397	7135
Apprch %	14.3	73.1	12.5	13.2	73.7	13.1	8.7	64.1	27.2	20.8	54.4	24.9	
Total %	3.7	18.9	3.2	2.5	13.7	2.4	2.9	21.3	9	4.7	12.2	5.6	

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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405099
Site Code : 00005724
Start Date : 6/11/2014
Page No : 2

	HARVARD AVENUE Southbound				WARNER AVENUE Westbound				HARVARD AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	28	149	35	212	18	58	14	90	5	44	15	64	**36**	40	**17**	**93**	459
08:00 AM	**29**	**156**	**41**	**226**	**25**	**78**	19	**122**	5	44	**21**	**70**	29	**44**	16	89	**507**
08:15 AM	21	147	12	180	24	75	**22**	121	5	**50**	14	69	17	16	12	45	415
08:30 AM	17	100	7	124	7	67	14	88	**6**	45	18	69	19	26	17	62	343
Total Volume	95	552	95	742	74	278	69	421	21	183	68	272	101	126	62	289	1724
% App. Total	12.8	74.4	12.8		17.6	66	16.4		7.7	67.3	25		34.9	43.6	21.5		
PHF	.819	.885	.579	.821	.740	.891	.784	.863	.875	.915	.810	.971	.701	.716	.912	.777	.850

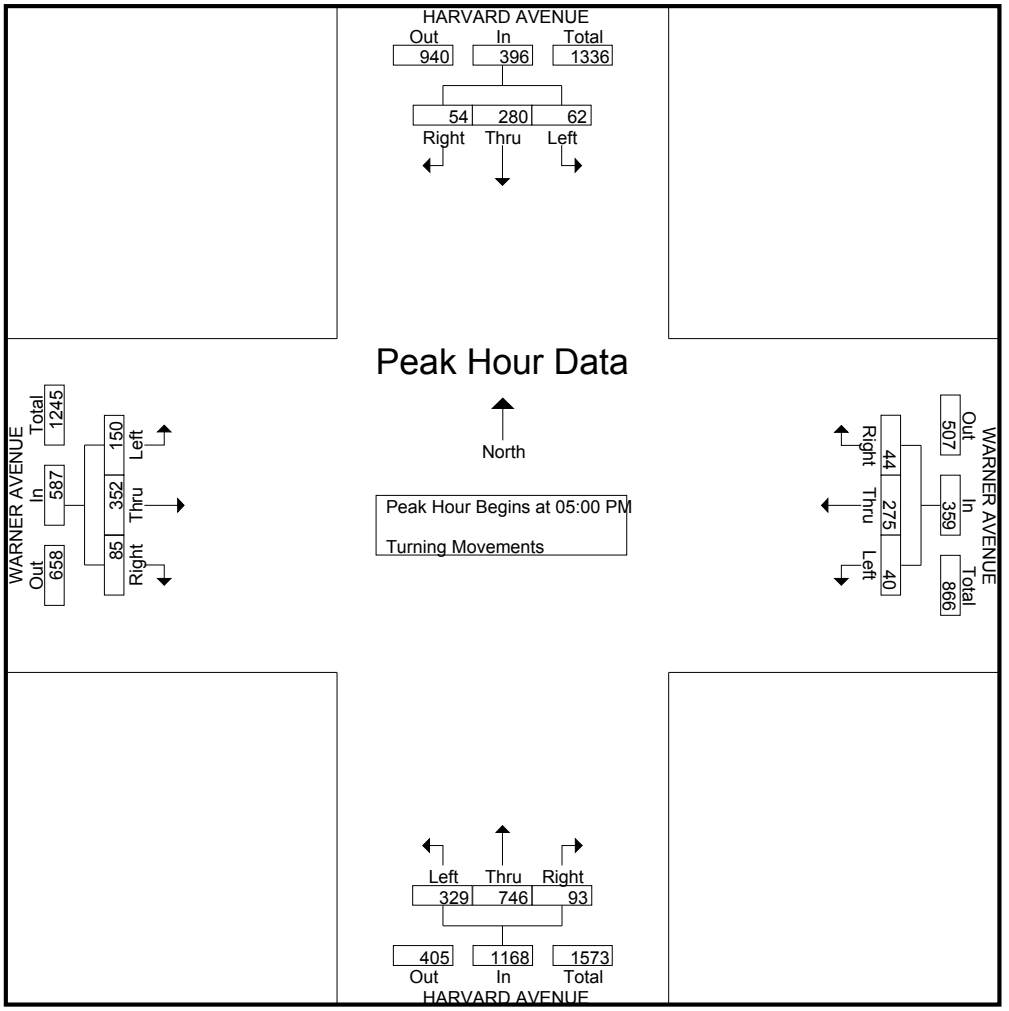


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: WARNER AVENUE

File Name : H1405099
Site Code : 00005724
Start Date : 6/11/2014
Page No : 3

	HARVARD AVENUE Southbound				WARNER AVENUE Westbound				HARVARD AVENUE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**17**	61	9	87	8	55	11	74	16	161	74	251	19	75	29	123	535
05:15 PM	12	**74**	18	104	12	**93**	**13**	**118**	19	179	82	280	**24**	88	**50**	162	664
05:30 PM	12	72	15	99	10	56	5	71	27	**206**	**87**	**320**	23	78	36	137	627
05:45 PM	13	73	**20**	**106**	**14**	71	11	96	**31**	200	86	317	19	**111**	35	**165**	**684**
Total Volume	54	280	62	396	44	275	40	359	93	746	329	1168	85	352	150	587	2510
% App. Total	13.6	70.7	15.7		12.3	76.6	11.1		8	63.9	28.2		14.5	60	25.6		
PHF	.794	.946	.775	.934	.786	.739	.769	.761	.750	.905	.945	.913	.885	.793	.750	.889	.917



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

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: WARNER AVENUE

File Name : H1404062
Site Code : 227
Start Date : 5/22/2014
Page No : 1

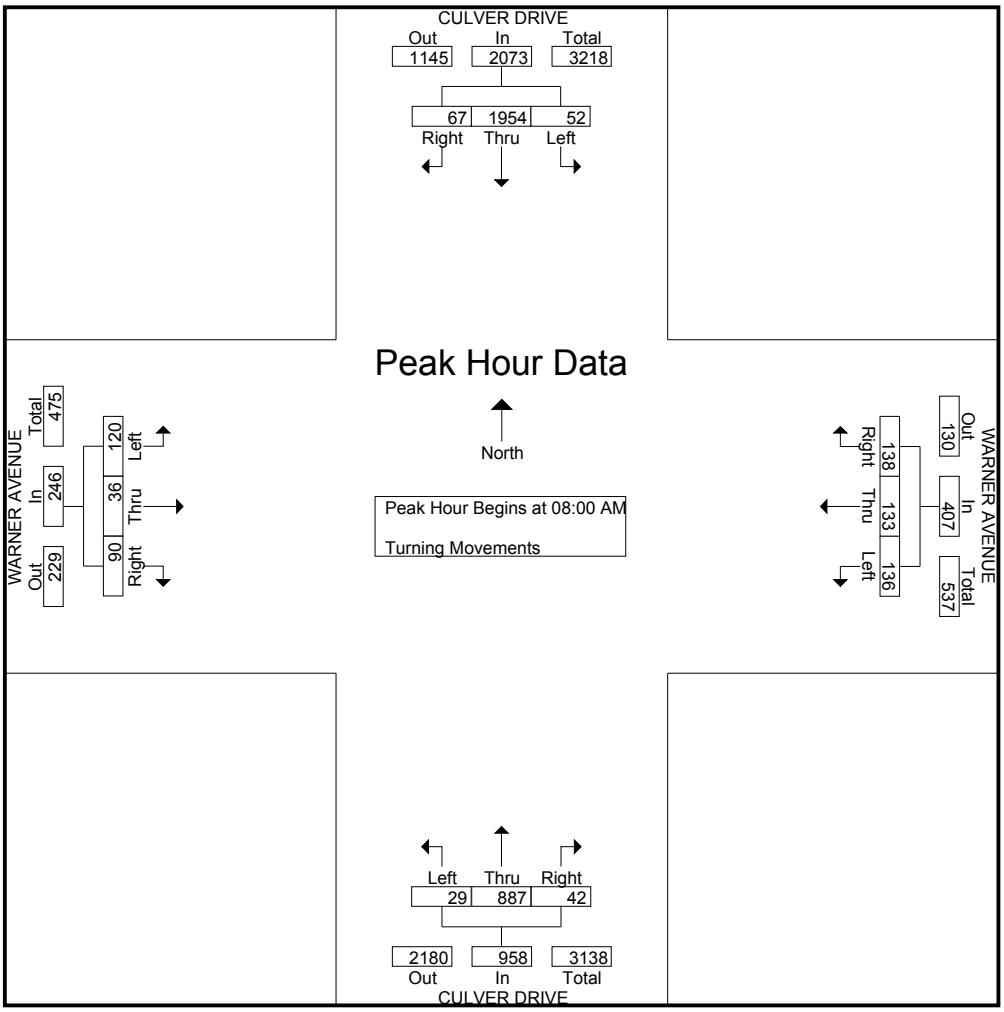
Groups Printed- Turning Movements

	CULVER DRIVE Southbound			WARNER AVENUE Westbound			CULVER DRIVE Northbound			WARNER AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	5	179	8	19	10	20	8	197	7	22	8	29	512
07:15 AM	19	332	9	33	12	20	6	231	4	13	4	29	712
07:30 AM	18	465	8	28	24	27	6	135	9	14	9	15	758
07:45 AM	14	458	13	26	20	36	4	169	4	20	15	31	810
Total	56	1434	38	106	66	103	24	732	24	69	36	104	2792
08:00 AM	16	478	18	31	31	32	10	189	5	19	14	31	874
08:15 AM	13	469	12	33	26	33	11	241	6	23	12	28	907
08:30 AM	19	500	12	38	39	36	10	229	10	23	6	25	947
08:45 AM	19	507	10	36	37	35	11	228	8	25	4	36	956
Total	67	1954	52	138	133	136	42	887	29	90	36	120	3684
*** BREAK ***													
04:00 PM	21	259	29	25	19	24	36	278	22	19	16	20	768
04:15 PM	25	302	26	18	18	20	29	318	19	15	29	28	847
04:30 PM	14	210	10	28	37	15	36	337	12	12	19	16	746
04:45 PM	34	320	31	20	18	13	38	397	17	17	38	35	978
Total	94	1091	96	91	92	72	139	1330	70	63	102	99	3339
05:00 PM	24	331	14	28	25	15	26	525	17	15	40	34	1094
05:15 PM	37	345	21	29	23	16	25	499	21	16	36	28	1096
05:30 PM	40	357	26	31	25	26	41	535	20	26	30	33	1190
05:45 PM	40	365	21	28	22	24	40	519	18	26	30	34	1167
Total	141	1398	82	116	95	81	132	2078	76	83	136	129	4547
Grand Total	358	5877	268	451	386	392	337	5027	199	305	310	452	14362
Apprch %	5.5	90.4	4.1	36.7	31.4	31.9	6.1	90.4	3.6	28.6	29.1	42.4	
Total %	2.5	40.9	1.9	3.1	2.7	2.7	2.3	35	1.4	2.1	2.2	3.1	

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: WARNER AVENUE

File Name : H1404062
Site Code : 227
Start Date : 5/22/2014
Page No : 2

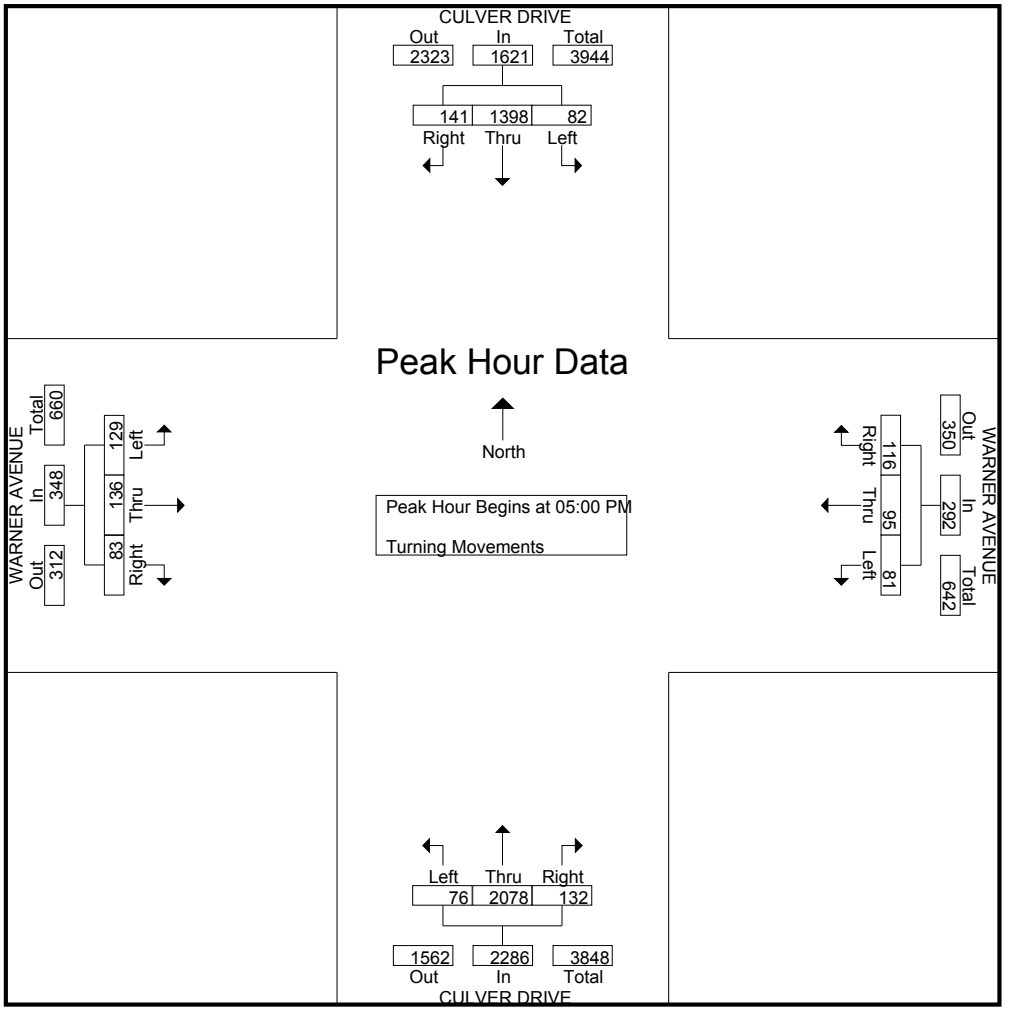
	CULVER DRIVE Southbound				WARNER AVENUE Westbound				CULVER DRIVE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	16	478	**18**	512	31	31	32	94	10	189	5	204	19	**14**	31	64	874
08:15 AM	13	469	12	494	33	26	33	92	**11**	**241**	6	**258**	23	12	28	63	907
08:30 AM	**19**	500	12	531	**38**	**39**	**36**	**113**	10	229	**10**	249	23	6	25	54	947
08:45 AM	19	**507**	10	**536**	36	37	35	108	11	228	8	247	**25**	4	**36**	**65**	**956**
Total Volume	67	1954	52	2073	138	133	136	407	42	887	29	958	90	36	120	246	3684
% App. Total	3.2	94.3	2.5		33.9	32.7	33.4		4.4	92.6	3		36.6	14.6	48.8		
PHF	.882	.964	.722	.967	.908	.853	.944	.900	.955	.920	.725	.928	.900	.643	.833	.946	.963



City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: WARNER AVENUE

File Name : H1404062
Site Code : 227
Start Date : 5/22/2014
Page No : 3

	CULVER DRIVE Southbound				WARNER AVENUE Westbound				CULVER DRIVE Northbound				WARNER AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	24	331	14	369	28	**25**	15	68	26	525	17	568	15	**40**	**34**	89	1094
05:15 PM	37	345	21	403	29	23	16	68	25	499	**21**	545	16	36	28	80	1096
05:30 PM	**40**	357	**26**	423	**31**	25	**26**	**82**	**41**	**535**	20	**596**	**26**	30	33	89	**1190**
05:45 PM	40	**365**	21	**426**	28	22	24	74	40	519	18	577	26	30	34	**90**	1167
Total Volume	141	1398	82	1621	116	95	81	292	132	2078	76	2286	83	136	129	348	4547
% App. Total	8.7	86.2	5.1		39.7	32.5	27.7		5.8	90.9	3.3		23.9	39.1	37.1		
PHF	.881	.958	.788	.951	.935	.950	.779	.890	.805	.971	.905	.959	.798	.850	.949	.967	.955



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

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: CARNEGIE AVENUE

File Name : H1405073
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

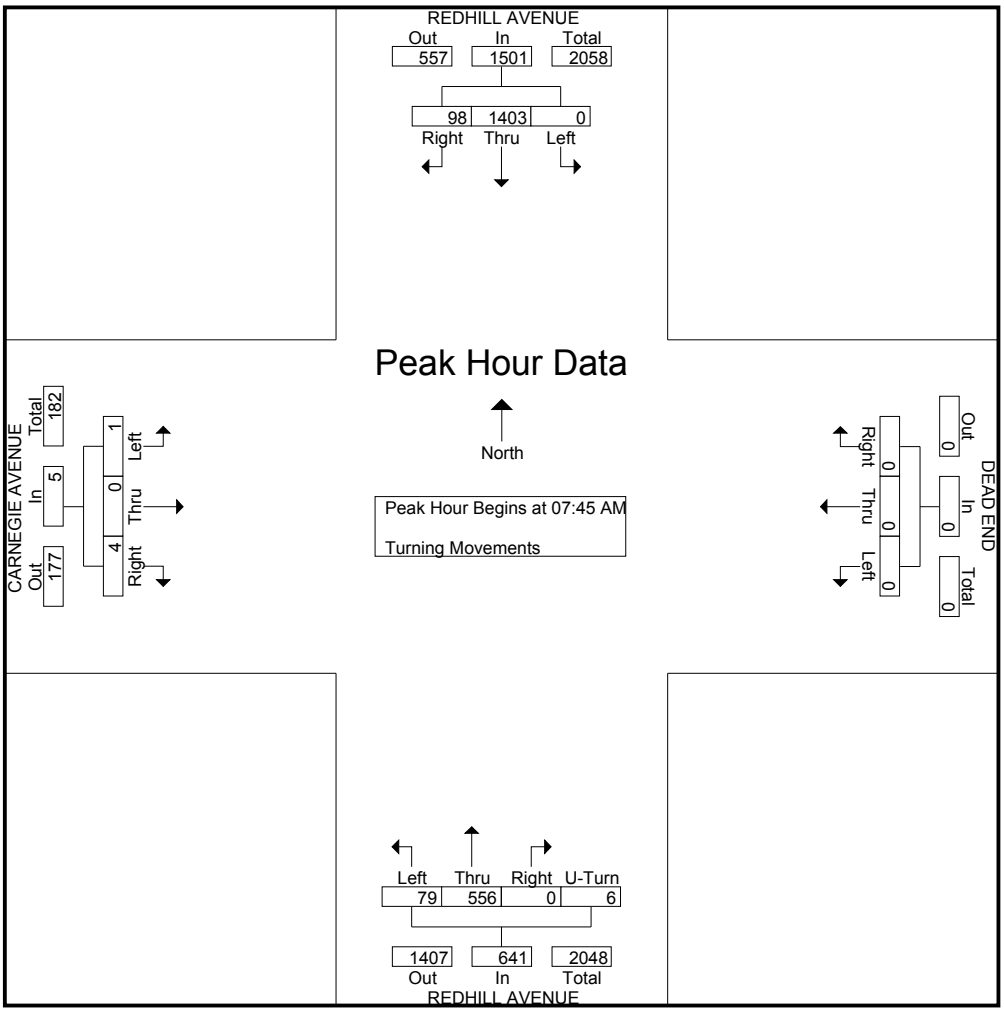
	REDHILL AVENUE Southbound			DEAD END Westbound			REDHILL AVENUE Northbound				CARNEGIE AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
07:00 AM	11	211	0	0	0	0	0	76	10	2	1	0	1	312
07:15 AM	23	275	0	0	0	0	0	89	20	1	1	0	1	410
07:30 AM	12	292	0	0	0	0	0	123	12	2	2	0	1	444
07:45 AM	32	397	0	0	0	0	0	156	24	2	2	0	0	613
Total	78	1175	0	0	0	0	0	444	66	7	6	0	3	1779
08:00 AM	28	330	0	0	0	0	0	158	27	0	0	0	0	543
08:15 AM	22	363	0	0	0	0	0	127	15	1	0	0	1	529
08:30 AM	16	313	0	0	0	0	0	115	13	3	2	0	0	462
08:45 AM	22	287	0	0	0	0	0	122	20	4	5	0	3	463
Total	88	1293	0	0	0	0	0	522	75	8	7	0	4	1997
*** BREAK ***														
04:00 PM	3	137	0	0	0	0	0	556	8	0	15	0	27	746
04:15 PM	6	156	0	0	0	0	0	489	17	0	8	0	14	690
04:30 PM	3	155	0	0	0	0	0	560	12	0	16	0	31	777
04:45 PM	4	170	0	0	0	0	0	578	12	2	11	0	30	807
Total	16	618	0	0	0	0	0	2183	49	2	50	0	102	3020
05:00 PM	4	196	0	0	0	0	0	619	10	2	29	0	48	908
05:15 PM	3	191	0	0	0	0	0	661	10	0	24	0	18	907
05:30 PM	4	188	0	0	0	0	0	610	5	1	13	0	18	839
05:45 PM	6	167	0	0	0	0	0	586	6	1	9	0	18	793
Total	17	742	0	0	0	0	0	2476	31	4	75	0	102	3447
Grand Total	199	3828	0	0	0	0	0	5625	221	21	138	0	211	10243
Apprch %	4.9	95.1	0	0	0	0	0	95.9	3.8	0.4	39.5	0	60.5	
Total %	1.9	37.4	0	0	0	0	0	54.9	2.2	0.2	1.3	0	2.1	

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

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: CARNEGIE AVENUE

File Name : H1405073
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	REDHILL AVENUE Southbound				DEAD END Westbound				REDHILL AVENUE Northbound					CARNEGIE AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:45 AM																		
07:45 AM	**32**	**397**	0	**429**	0	0	0	0	0	156	24	2	182	**2**	0	0	**2**	**613**
08:00 AM	28	330	0	358	0	0	0	0	0	**158**	**27**	0	**185**	0	0	0	0	543
08:15 AM	22	363	0	385	0	0	0	0	0	127	15	1	143	0	0	**1**	1	529
08:30 AM	16	313	0	329	0	0	0	0	0	115	13	**3**	131	2	0	0	2	462
Total Volume	98	1403	0	1501	0	0	0	0	0	556	79	6	641	4	0	1	5	2147
% App. Total	6.5	93.5	0		0	0	0		0	86.7	12.3	0.9		80	0	20		
PHF	.766	.884	.000	.875	.000	.000	.000	.000	.000	.880	.731	.500	.866	.500	.000	.250	.625	.876

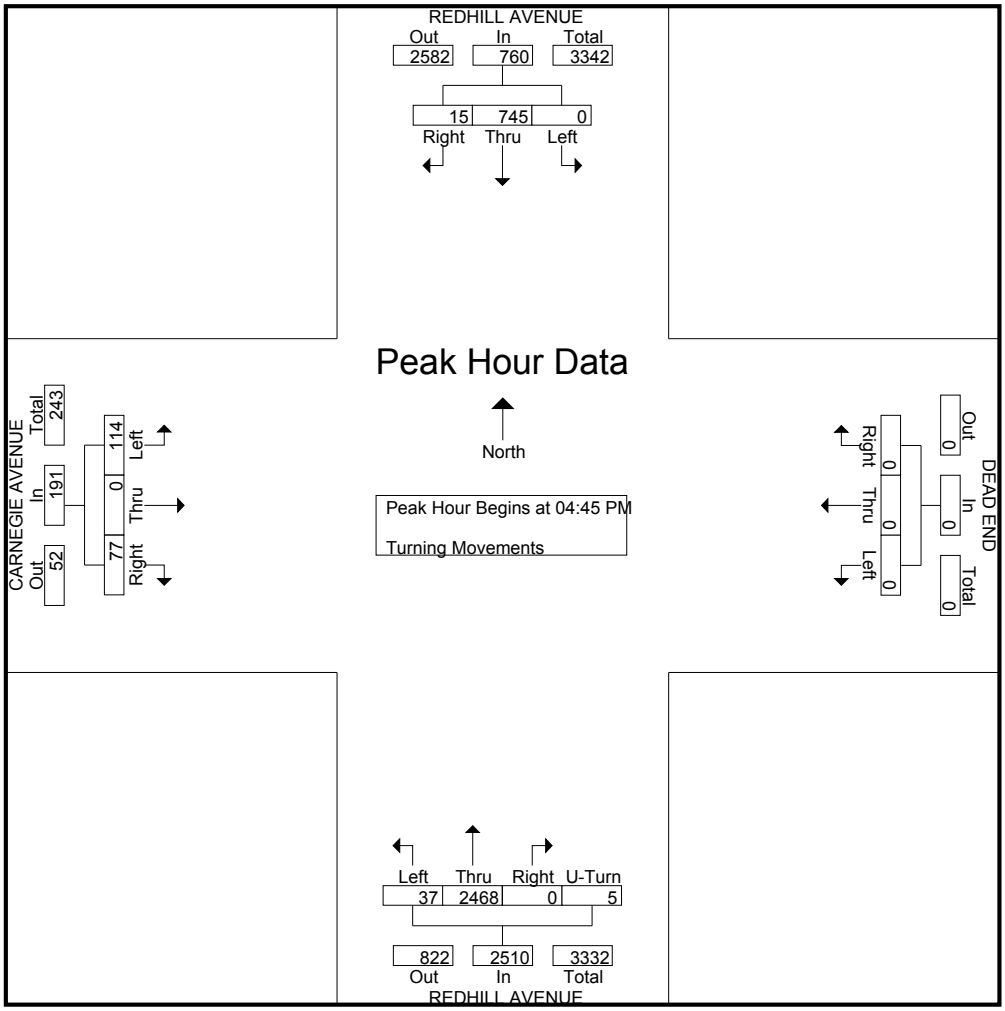


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: CARNEGIE AVENUE

File Name : H1405073
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound				DEAD END Westbound				REDHILL AVENUE Northbound					CARNEGIE AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	**4**	170	0	174	0	0	0	0	0	578	**12**	**2**	592	11	0	30	41	807
05:00 PM	4	**196**	0	**200**	0	0	0	0	0	619	10	2	631	**29**	0	**48**	**77**	**908**
05:15 PM	3	191	0	194	0	0	0	0	0	**661**	10	0	**671**	24	0	18	42	907
05:30 PM	4	188	0	192	0	0	0	0	0	610	5	1	616	13	0	18	31	839
Total Volume	15	745	0	760	0	0	0	0	0	2468	37	5	2510	77	0	114	191	3461
% App. Total	2	98	0		0	0	0		0	98.3	1.5	0.2		40.3	0	59.7		
PHF	.938	.950	.000	.950	.000	.000	.000	.000	.000	.933	.771	.625	.935	.664	.000	.594	.620	.953



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

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: PARK AVENUE

File Name : H1405083
Site Code : 00000000
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movments

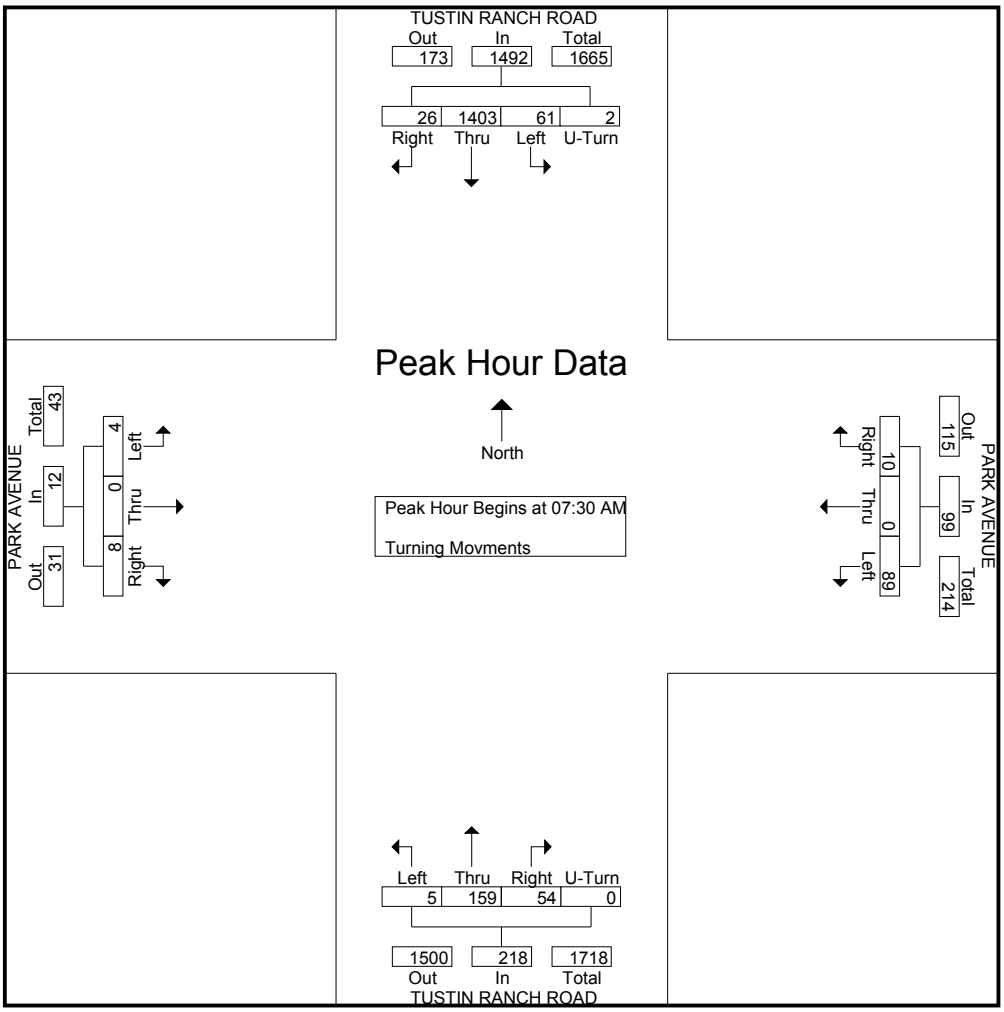
	TUSTIN RANCH ROAD Southbound				PARK AVENUE Westbound			TUSTIN RANCH ROAD Northbound				PARK AVENUE Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
07:00 AM	16	188	2	0	1	0	13	9	27	11	0	1	1	0	269
07:15 AM	8	263	6	1	2	0	21	10	29	8	0	0	0	2	350
07:30 AM	6	343	13	0	1	0	18	12	37	1	0	0	0	0	431
07:45 AM	5	414	16	2	4	0	26	8	55	2	0	0	0	0	532
Total	35	1208	37	3	8	0	78	39	148	22	0	1	1	2	1582
08:00 AM	11	340	18	0	3	0	20	17	34	1	0	4	0	4	452
08:15 AM	4	306	14	0	2	0	25	17	33	1	0	4	0	0	406
08:30 AM	0	309	16	0	3	1	24	14	55	0	0	2	0	1	425
08:45 AM	6	264	13	3	11	0	23	25	29	0	0	0	0	0	374
Total	21	1219	61	3	19	1	92	73	151	2	0	10	0	5	1657
*** BREAK ***															
04:00 PM	1	70	26	6	44	0	73	62	241	0	3	14	0	3	543
04:15 PM	2	61	34	2	30	0	59	66	299	0	4	9	0	2	568
04:30 PM	1	58	31	2	29	0	75	79	253	0	8	8	0	2	546
04:45 PM	2	62	33	8	36	0	48	86	379	0	4	9	0	5	672
Total	6	251	124	18	139	0	255	293	1172	0	19	40	0	12	2329
05:00 PM	0	101	26	4	41	0	69	80	355	0	1	3	0	0	680
05:15 PM	0	97	31	2	37	0	55	88	378	0	4	2	0	0	694
05:30 PM	0	90	40	3	38	0	57	87	379	0	2	3	0	0	699
05:45 PM	0	69	54	2	48	0	54	106	301	0	6	6	0	0	646
Total	0	357	151	11	164	0	235	361	1413	0	13	14	0	0	2719
Grand Total	62	3035	373	35	330	1	660	766	2884	24	32	65	1	19	8287
Apprch %	1.8	86.6	10.6	1	33.3	0.1	66.6	20.7	77.8	0.6	0.9	76.5	1.2	22.4	
Total %	0.7	36.6	4.5	0.4	4	0	8	9.2	34.8	0.3	0.4	0.8	0	0.2	

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

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: PARK AVENUE

File Name : H1405083
Site Code : 00000000
Start Date : 6/12/2014
Page No : 2

	TUSTIN RANCH ROAD Southbound					PARK AVENUE Westbound				TUSTIN RANCH ROAD Northbound					PARK AVENUE Eastbound				
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	6	343	13	0	362	1	0	18	19	12	37	1	0	50	0	0	0	0	431
07:45 AM	5	**414**	16	**2**	**437**	**4**	0	**26**	**30**	8	**55**	**2**	0	**65**	0	0	0	0	**532**
08:00 AM	**11**	340	**18**	0	369	3	0	20	23	**17**	34	1	0	52	**4**	0	**4**	**8**	452
08:15 AM	4	306	14	0	324	2	0	25	27	17	33	1	0	51	4	0	0	4	406
Total Volume	26	1403	61	2	1492	10	0	89	99	54	159	5	0	218	8	0	4	12	1821
% App. Total	1.7	94	4.1	0.1		10.1	0	89.9		24.8	72.9	2.3	0		66.7	0	33.3		
PHF	.591	.847	.847	.250	.854	.625	.000	.856	.825	.794	.723	.625	.000	.838	.500	.000	.250	.375	.856

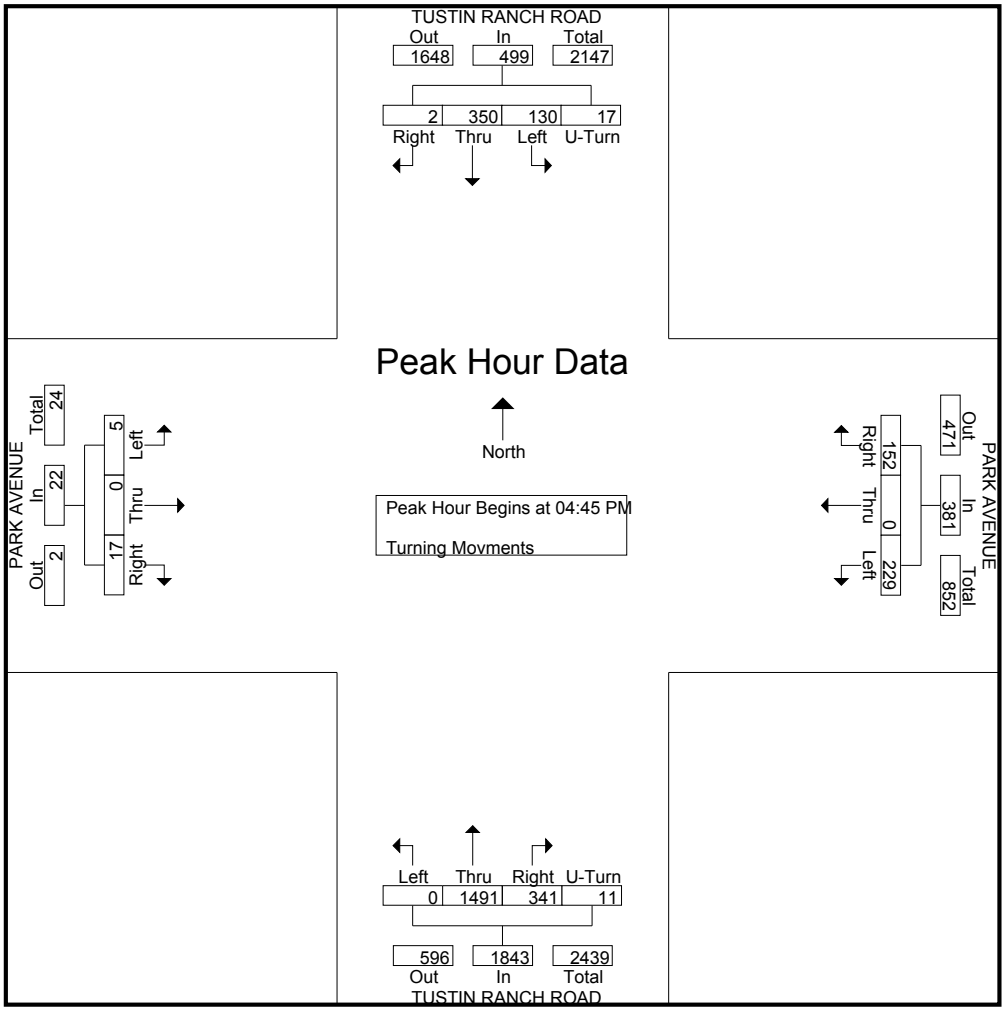


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: PARK AVENUE

File Name : H1405083
Site Code : 00000000
Start Date : 6/12/2014
Page No : 3

	TUSTIN RANCH ROAD Southbound					PARK AVENUE Westbound				TUSTIN RANCH ROAD Northbound					PARK AVENUE Eastbound				
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:45 PM																			
04:45 PM	**2**	62	33	**8**	105	36	0	48	84	86	**379**	0	**4**	469	**9**	0	**5**	**14**	672
05:00 PM	0	**101**	26	4	131	**41**	0	**69**	**110**	80	355	0	1	436	3	0	0	3	680
05:15 PM	0	97	31	2	130	37	0	55	92	**88**	378	0	4	**470**	2	0	0	2	694
05:30 PM	0	90	**40**	3	**133**	38	0	57	95	87	379	0	2	468	3	0	0	3	**699**
Total Volume	2	350	130	17	499	152	0	229	381	341	1491	0	11	1843	17	0	5	22	2745
% App. Total	0.4	70.1	26.1	3.4		39.9	0	60.1		18.5	80.9	0	0.6		77.3	0	22.7		
PHF	.250	.866	.813	.531	.938	.927	.000	.830	.866	.969	.984	.000	.688	.980	.472	.000	.250	.393	.982



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

City: TUSTIN
N-S Direction: THE DISTRICT
E-W Direction: PARK AVENUE

File Name : H1405088
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

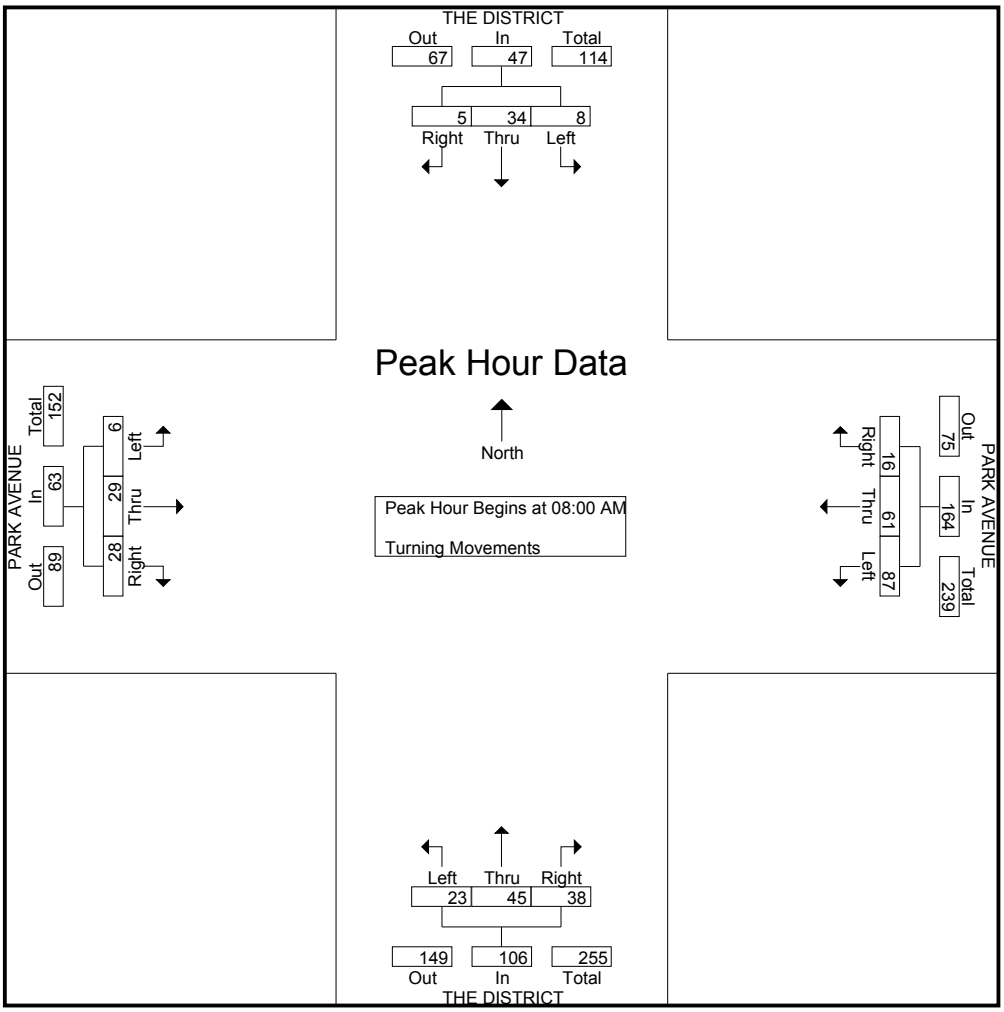
	THE DISTRICT Southbound			PARK AVENUE Westbound			THE DISTRICT Northbound			PARK AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	1	0	0	5	10	9	3	0	3	4	0	36
07:15 AM	0	3	0	1	10	18	5	6	3	6	9	0	61
07:30 AM	3	6	0	1	13	22	6	6	2	6	7	0	72
07:45 AM	0	6	1	2	18	21	7	6	4	7	8	0	80
Total	4	16	1	4	46	71	27	21	9	22	28	0	249
08:00 AM	4	9	0	3	18	22	11	5	4	5	6	3	90
08:15 AM	0	5	0	4	10	34	12	10	4	8	6	0	93
08:30 AM	0	7	2	5	17	14	10	13	2	9	4	1	84
08:45 AM	1	13	6	4	16	17	5	17	13	6	13	2	113
Total	5	34	8	16	61	87	38	45	23	28	29	6	380
*** BREAK ***													
04:00 PM	7	28	7	10	27	29	26	39	26	9	28	6	242
04:15 PM	4	28	4	3	27	35	37	38	21	16	21	4	238
04:30 PM	1	33	9	3	26	35	43	41	26	15	27	4	263
04:45 PM	5	33	10	8	24	30	43	44	16	19	36	3	271
Total	17	122	30	24	104	129	149	162	89	59	112	17	1014
05:00 PM	7	20	12	13	19	40	38	48	18	20	27	4	266
05:15 PM	7	21	8	9	27	38	29	34	31	23	29	7	263
05:30 PM	4	19	8	11	31	38	44	47	33	32	35	8	310
05:45 PM	3	26	4	4	44	38	39	42	25	21	33	7	286
Total	21	86	32	37	121	154	150	171	107	96	124	26	1125
Grand Total	47	258	71	81	332	441	364	399	228	205	293	49	2768
Apprch %	12.5	68.6	18.9	9.5	38.9	51.6	36.7	40.3	23	37.5	53.6	9	
Total %	1.7	9.3	2.6	2.9	12	15.9	13.2	14.4	8.2	7.4	10.6	1.8	

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

City: TUSTIN
N-S Direction: THE DISTRICT
E-W Direction: PARK AVENUE

File Name : H1405088
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	THE DISTRICT Southbound				PARK AVENUE Westbound				THE DISTRICT Northbound				PARK AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**4**	9	0	13	3	**18**	22	43	11	5	4	20	5	6	**3**	14	90
08:15 AM	0	5	0	5	4	10	**34**	**48**	**12**	10	4	26	8	6	0	14	93
08:30 AM	0	7	2	9	**5**	17	14	36	10	13	2	25	**9**	4	1	14	84
08:45 AM	1	**13**	**6**	**20**	4	16	17	37	5	**17**	**13**	**35**	6	**13**	2	**21**	**113**
Total Volume	5	34	8	47	16	61	87	164	38	45	23	106	28	29	6	63	380
% App. Total	10.6	72.3	17		9.8	37.2	53		35.8	42.5	21.7		44.4	46	9.5		
PHF	.313	.654	.333	.588	.800	.847	.640	.854	.792	.662	.442	.757	.778	.558	.500	.750	.841

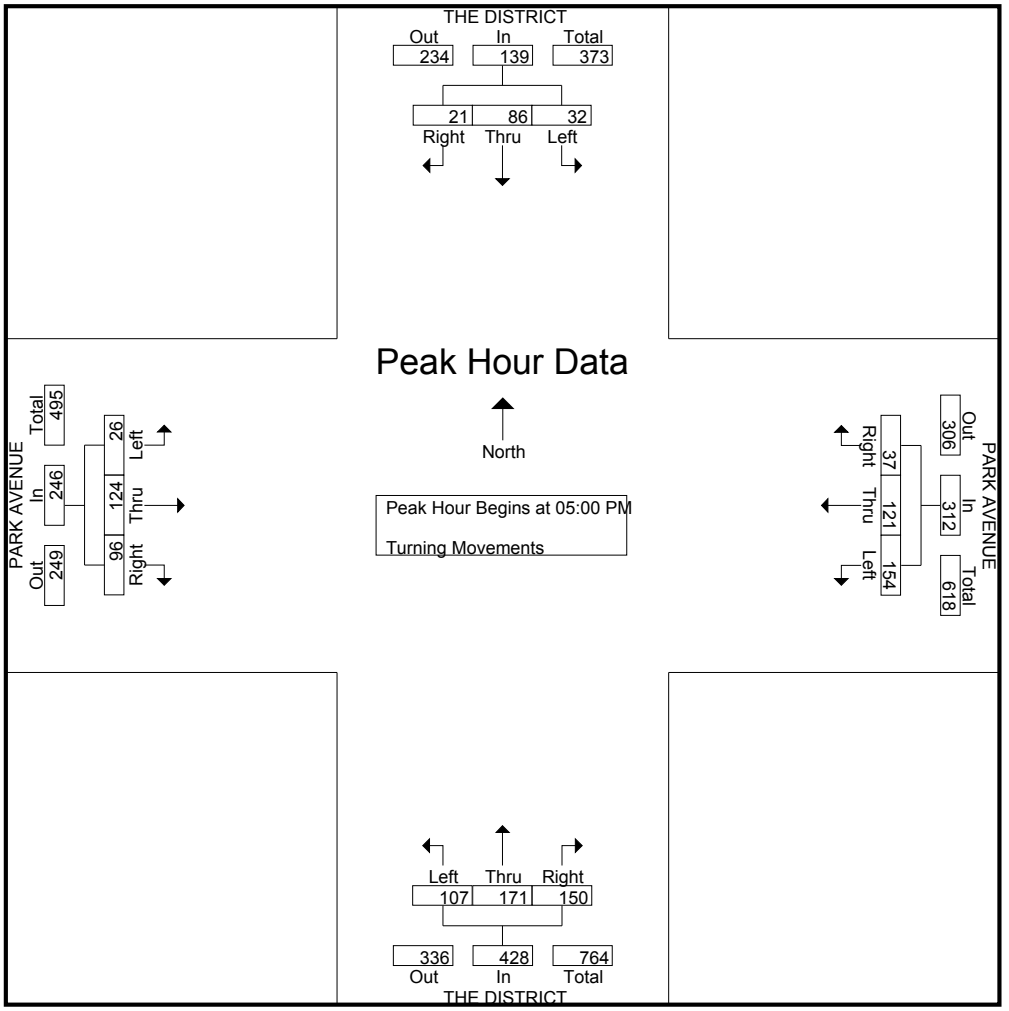


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: THE DISTRICT
E-W Direction: PARK AVENUE

File Name : H1405088
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	THE DISTRICT Southbound				PARK AVENUE Westbound				THE DISTRICT Northbound				PARK AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**7**	20	**12**	**39**	**13**	19	**40**	72	38	**48**	18	104	20	27	4	51	266
05:15 PM	7	21	8	36	9	27	38	74	29	34	31	94	23	29	7	59	263
05:30 PM	4	19	8	31	11	31	38	80	**44**	47	**33**	**124**	**32**	**35**	**8**	**75**	**310**
05:45 PM	3	**26**	4	33	4	**44**	38	**86**	39	42	25	106	21	33	7	61	286
Total Volume	21	86	32	139	37	121	154	312	150	171	107	428	96	124	26	246	1125
% App. Total	15.1	61.9	23		11.9	38.8	49.4		35	40	25		39	50.4	10.6		
PHF	.750	.827	.667	.891	.712	.688	.963	.907	.852	.891	.811	.863	.750	.886	.813	.820	.907



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

City: SANTA ANA
N-S- Direction: SR-55 SB RAMPS
E-W Direction: DYER ROAD

File Name : H1409060
Site Code : 00000000
Start Date : 9/23/2014
Page No : 1

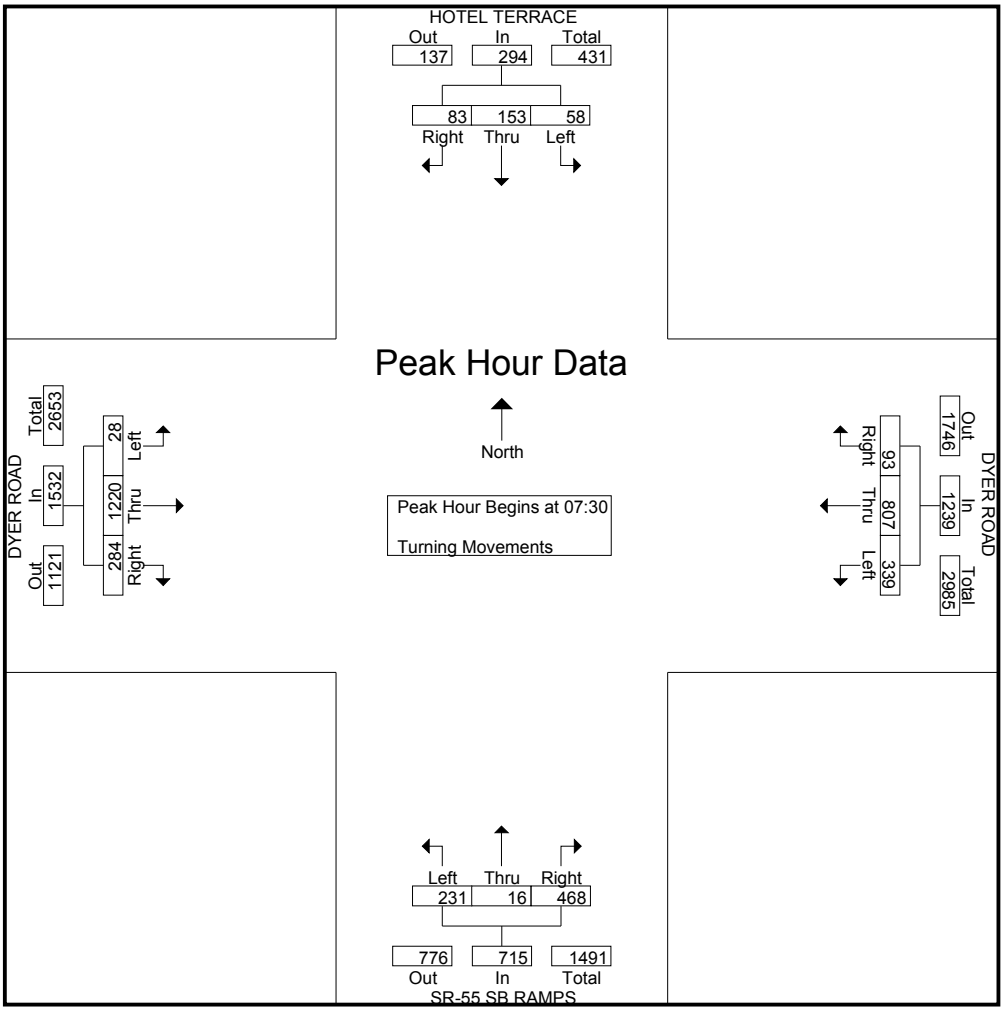
Groups Printed- Turning Movements

	HOTEL TERRACE Southbound			DYER ROAD Westbound			SR-55 SB RAMPS Northbound			DYER ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00	18	27	10	26	159	55	138	2	69	62	229	7	802
07:15	21	45	8	25	169	80	128	7	63	68	246	9	869
07:30	27	42	13	19	181	91	113	5	81	78	287	3	940
07:45	22	49	16	21	221	77	128	4	63	65	312	11	989
Total	88	163	47	91	730	303	507	18	276	273	1074	30	3600
08:00	16	28	20	27	200	74	124	4	50	77	314	7	941
08:15	18	34	9	26	205	97	103	3	37	64	307	7	910
08:30	14	34	17	33	196	88	107	5	35	70	237	7	843
08:45	16	22	24	27	193	99	129	3	37	58	224	4	836
Total	64	118	70	113	794	358	463	15	159	269	1082	25	3530
*** BREAK ***													
16:00	27	53	38	14	257	139	56	2	55	56	308	25	1030
16:15	18	43	24	22	218	125	43	3	63	46	359	20	984
16:30	35	68	25	5	259	153	52	0	61	61	368	27	1114
16:45	27	43	24	23	243	108	54	0	62	59	375	19	1037
Total	107	207	111	64	977	525	205	5	241	222	1410	91	4165
17:00	23	70	32	20	272	143	48	3	74	65	346	19	1115
17:15	30	44	22	9	298	132	57	1	59	51	421	21	1145
17:30	18	43	20	15	242	124	44	3	70	49	361	23	1012
17:45	24	42	24	24	216	122	51	0	65	33	323	15	939
Total	95	199	98	68	1028	521	200	7	268	198	1451	78	4211
Grand Total	354	687	326	336	3529	1707	1375	45	944	962	5017	224	15506
Apprch %	25.9	50.3	23.8	6	63.3	30.6	58.2	1.9	39.9	15.5	80.9	3.6	
Total %	2.3	4.4	2.1	2.2	22.8	11	8.9	0.3	6.1	6.2	32.4	1.4	

City: SANTA ANA
N-S- Direction: SR-55 SB RAMPS
E-W Direction: DYER ROAD

File Name : H1409060
Site Code : 00000000
Start Date : 9/23/2014
Page No : 2

	HOTEL TERRACE Southbound				DYER ROAD Westbound				SR-55 SB RAMPS Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30																	
07:30	**27**	42	13	82	19	181	91	291	113	**5**	**81**	**199**	**78**	287	3	368	940
07:45	22	**49**	16	**87**	21	**221**	77	319	**128**	4	63	195	65	312	**11**	388	**989**
08:00	16	28	**20**	64	**27**	200	74	301	124	4	50	178	77	**314**	7	**398**	941
08:15	18	34	9	61	26	205	**97**	**328**	103	3	37	143	64	307	7	378	910
Total Volume	83	153	58	294	93	807	339	1239	468	16	231	715	284	1220	28	1532	3780
% App. Total	28.2	52	19.7		7.5	65.1	27.4		65.5	2.2	32.3		18.5	79.6	1.8		
PHF	.769	.781	.725	.845	.861	.913	.874	.944	.914	.800	.713	.898	.910	.971	.636	.962	.956

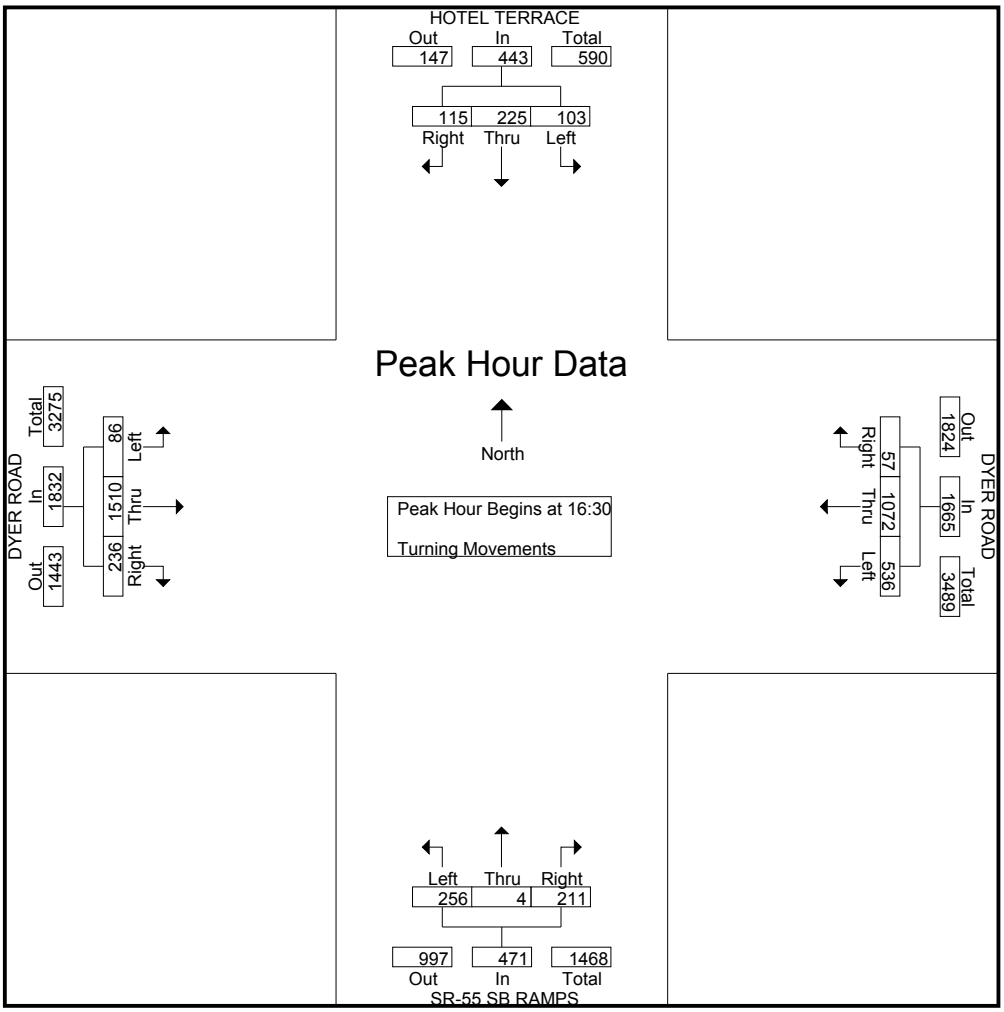


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S- Direction: SR-55 SB RAMPS
E-W Direction: DYER ROAD

File Name : H1409060
Site Code : 00000000
Start Date : 9/23/2014
Page No : 3

	HOTEL TERRACE Southbound				DYER ROAD Westbound				SR-55 SB RAMPS Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	**35**	68	25	**128**	5	259	**153**	417	52	0	61	113	61	368	**27**	456	1114
16:45	27	43	24	94	**23**	243	108	374	54	0	62	116	59	375	19	453	1037
17:00	23	**70**	**32**	125	20	272	143	435	48	**3**	**74**	**125**	**65**	346	19	430	1115
17:15	30	44	22	96	9	**298**	132	**439**	**57**	1	59	117	51	**421**	21	**493**	**1145**
Total Volume	115	225	103	443	57	1072	536	1665	211	4	256	471	236	1510	86	1832	4411
% App. Total	26	50.8	23.3		3.4	64.4	32.2		44.8	0.8	54.4		12.9	82.4	4.7		
PHF	.821	.804	.805	.865	.620	.899	.876	.948	.925	.333	.865	.942	.908	.897	.796	.929	.963



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

File Name : H1409061
Site Code : 00000000
Start Date : 9/23/2014
Page No : 1

Groups Printed- Turning Movements

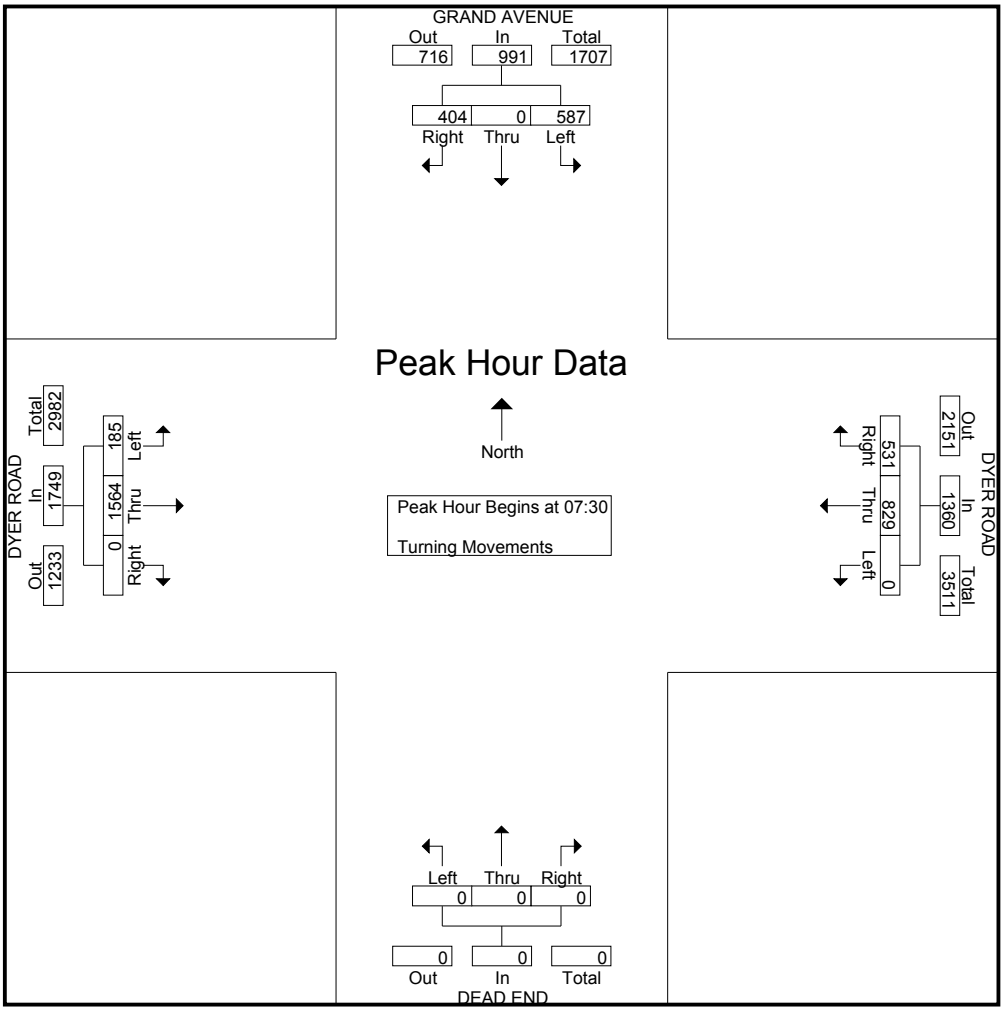
	GRAND AVENUE Southbound			DYER ROAD Westbound			DEAD END Northbound			DYER ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00	84	0	150	98	176	0	0	0	0	0	334	35	877
07:15	84	0	153	126	174	0	0	0	0	0	346	26	909
07:30	116	0	154	120	186	0	0	0	0	0	376	40	992
07:45	81	0	176	156	228	0	0	0	0	0	401	61	1103
Total	365	0	633	500	764	0	0	0	0	0	1457	162	3881
08:00	109	0	146	134	193	0	0	0	0	0	405	43	1030
08:15	98	0	111	121	222	0	0	0	0	0	382	41	975
08:30	98	0	119	113	224	0	0	0	0	0	318	31	903
08:45	96	0	104	123	225	0	0	0	0	0	370	24	942
Total	401	0	480	491	864	0	0	0	0	0	1475	139	3850
*** BREAK ***													
16:00	93	0	55	101	318	0	0	0	0	0	333	75	975
16:15	110	0	67	108	253	0	0	0	0	0	337	98	973
16:30	119	0	72	106	302	0	0	0	0	0	368	71	1038
16:45	105	0	59	105	266	0	0	0	0	0	355	91	981
Total	427	0	253	420	1139	0	0	0	0	0	1393	335	3967
17:00	124	0	79	87	342	0	0	0	0	0	353	59	1044
17:15	92	0	77	106	295	0	0	0	0	0	363	106	1039
17:30	112	0	105	114	272	0	0	0	0	0	346	102	1051
17:45	85	0	67	122	285	0	0	0	0	0	356	70	985
Total	413	0	328	429	1194	0	0	0	0	0	1418	337	4119
Grand Total	1606	0	1694	1840	3961	0	0	0	0	0	5743	973	15817
Apprch %	48.7	0	51.3	31.7	68.3	0	0	0	0	0	85.5	14.5	
Total %	10.2	0	10.7	11.6	25	0	0	0	0	0	36.3	6.2	

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

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

File Name : H1409061
Site Code : 00000000
Start Date : 9/23/2014
Page No : 2

	GRAND AVENUE Southbound				DYER ROAD Westbound				DEAD END Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30																	
07:30	**116**	0	154	**270**	120	186	0	306	0	0	0	0	0	376	40	416	992
07:45	81	0	**176**	257	**156**	**228**	0	**384**	0	0	0	0	0	401	**61**	**462**	**1103**
08:00	109	0	146	255	134	193	0	327	0	0	0	0	0	**405**	43	448	1030
08:15	98	0	111	209	121	222	0	343	0	0	0	0	0	382	41	423	975
Total Volume	404	0	587	991	531	829	0	1360	0	0	0	0	0	1564	185	1749	4100
% App. Total	40.8	0	59.2		39	61	0		0	0	0		0	89.4	10.6		
PHF	.871	.000	.834	.918	.851	.909	.000	.885	.000	.000	.000	.000	.000	.965	.758	.946	.929

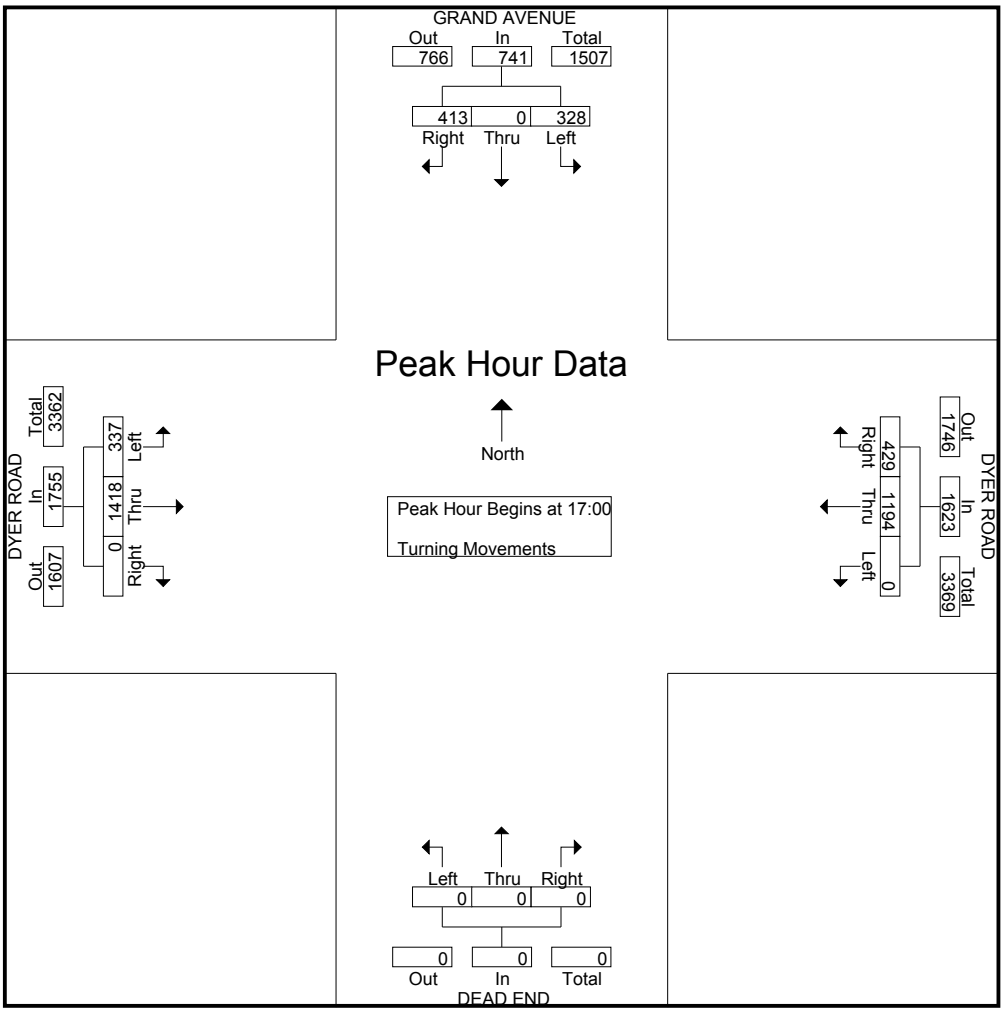


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

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

File Name : H1409061
Site Code : 00000000
Start Date : 9/23/2014
Page No : 3

	GRAND AVENUE Southbound				DYER ROAD Westbound				DEAD END Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	**124**	0	79	203	87	**342**	0	**429**	0	0	0	0	0	353	59	412	1044
17:15	92	0	77	169	106	295	0	401	0	0	0	0	0	**363**	**106**	**469**	1039
17:30	112	0	**105**	**217**	114	272	0	386	0	0	0	0	0	346	102	448	**1051**
17:45	85	0	67	152	**122**	285	0	407	0	0	0	0	0	356	70	426	985
Total Volume	413	0	328	741	429	1194	0	1623	0	0	0	0	0	1418	337	1755	4119
% App. Total	55.7	0	44.3		26.4	73.6	0		0	0	0		0	80.8	19.2		
PHF	.833	.000	.781	.854	.879	.873	.000	.946	.000	.000	.000	.000	.000	.977	.795	.936	.980



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

City: SANTA ANA
N-S- Direction: SR-55 NB RAMPS
E-W Direction: DYER ROAD

File Name : H1409062
Site Code : 00000000
Start Date : 9/23/2014
Page No : 1

Groups Printed- Turning Movements

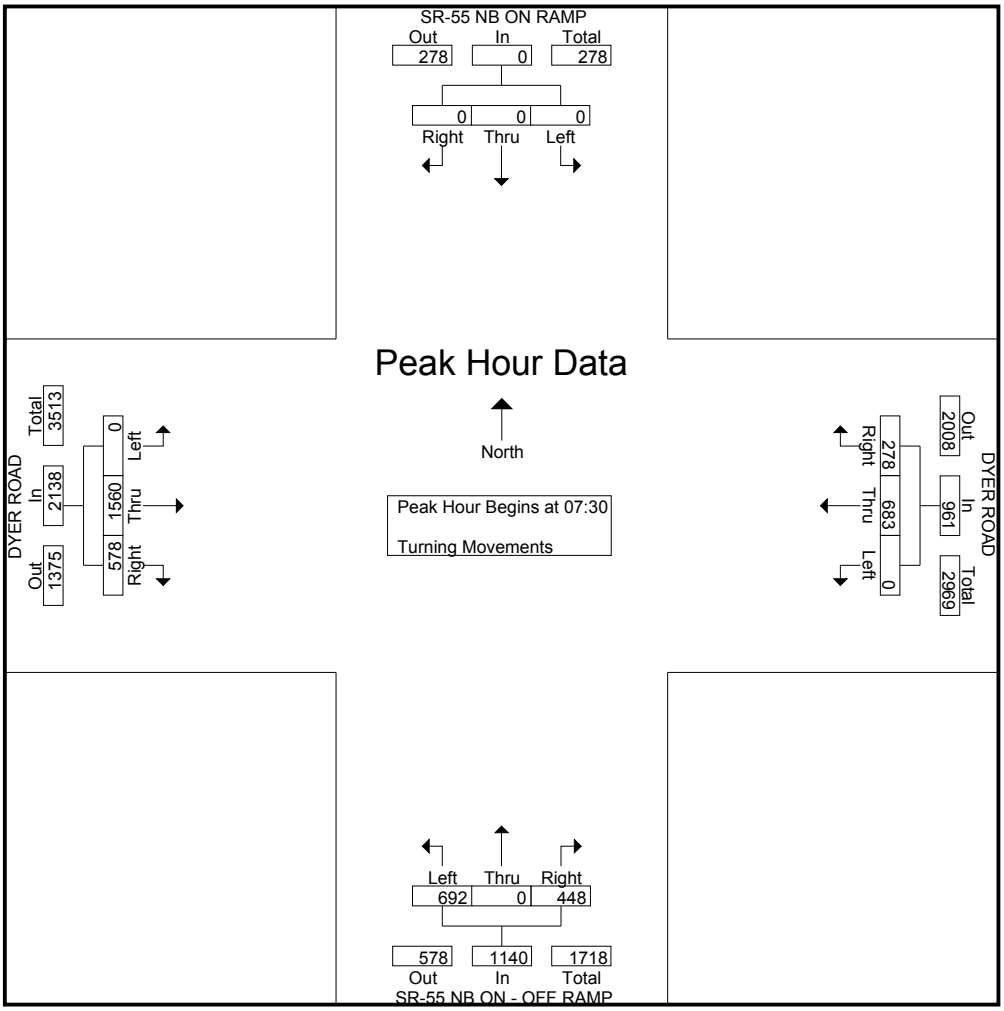
	SR-55 NB ON RAMP Southbound			DYER ROAD Westbound			SR-55 NB ON - OFF RAMP Northbound			DYER ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00	0	0	0	71	102	0	101	0	164	143	367	0	948
07:15	0	0	0	63	123	0	117	0	175	125	382	0	985
07:30	0	0	0	72	147	0	94	0	153	170	364	0	1000
07:45	0	0	0	71	182	0	110	0	211	125	423	0	1122
Total	0	0	0	277	554	0	422	0	703	563	1536	0	4055
08:00	0	0	0	66	182	0	119	0	160	143	418	0	1088
08:15	0	0	0	69	172	0	125	0	168	140	355	0	1029
08:30	0	0	0	76	191	0	126	0	164	110	318	0	985
08:45	0	0	0	65	170	0	105	0	152	130	361	0	983
Total	0	0	0	276	715	0	475	0	644	523	1452	0	4085
*** BREAK ***													
16:00	0	0	0	298	346	0	32	0	64	159	228	0	1127
16:15	0	0	0	243	306	0	20	0	60	161	244	0	1034
16:30	0	0	0	261	372	0	23	0	42	164	270	0	1132
16:45	0	0	0	210	326	0	23	0	46	156	272	0	1033
Total	0	0	0	1012	1350	0	98	0	212	640	1014	0	4326
17:00	0	0	0	284	387	0	14	0	53	166	275	0	1179
17:15	0	0	0	246	378	0	21	0	40	155	319	0	1159
17:30	0	0	0	219	349	0	21	0	33	138	289	0	1049
17:45	0	0	0	185	326	0	18	0	56	129	274	0	988
Total	0	0	0	934	1440	0	74	0	182	588	1157	0	4375
Grand Total	0	0	0	2499	4059	0	1069	0	1741	2314	5159	0	16841
Apprch %	0	0	0	38.1	61.9	0	38	0	62	31	69	0	
Total %	0	0	0	14.8	24.1	0	6.3	0	10.3	13.7	30.6	0	

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

City: SANTA ANA
N-S- Direction: SR-55 NB RAMPS
E-W Direction: DYER ROAD

File Name : H1409062
Site Code : 00000000
Start Date : 9/23/2014
Page No : 2

	SR-55 NB ON RAMP Southbound				DYER ROAD Westbound				SR-55 NB ON - OFF RAMP Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30																	
07:30	0	0	0	0	**72**	147	0	219	94	0	153	247	**170**	364	0	534	1000
07:45	0	0	0	0	71	**182**	0	**253**	110	0	**211**	**321**	125	**423**	0	548	**1122**
08:00	0	0	0	0	66	182	0	248	119	0	160	279	143	418	0	**561**	1088
08:15	0	0	0	0	69	172	0	241	**125**	0	168	293	140	355	0	495	1029
Total Volume	0	0	0	0	278	683	0	961	448	0	692	1140	578	1560	0	2138	4239
% App. Total	0	0	0		28.9	71.1	0		39.3	0	60.7		27	73	0		
PHF	.000	.000	.000	.000	.965	.938	.000	.950	.896	.000	.820	.888	.850	.922	.000	.953	.945

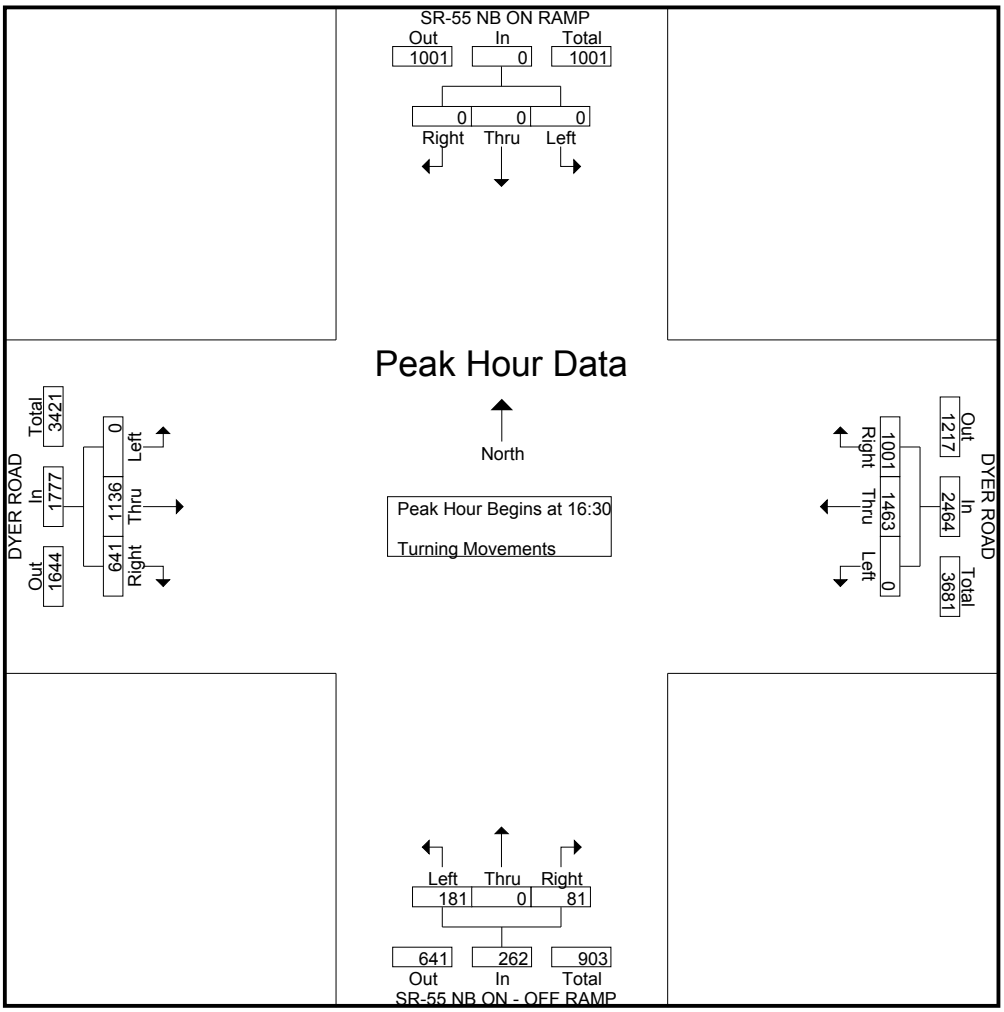


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: SANTA ANA
N-S- Direction: SR-55 NB RAMPS
E-W Direction: DYER ROAD

File Name : H1409062
Site Code : 00000000
Start Date : 9/23/2014
Page No : 3

	SR-55 NB ON RAMP Southbound				DYER ROAD Westbound				SR-55 NB ON - OFF RAMP Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	0	0	0	0	261	372	0	633	**23**	0	42	65	164	270	0	434	1132
16:45	0	0	0	0	210	326	0	536	23	0	46	**69**	156	272	0	428	1033
17:00	0	0	0	0	**284**	**387**	0	**671**	14	0	**53**	67	**166**	275	0	441	**1179**
17:15	0	0	0	0	246	378	0	624	21	0	40	61	155	**319**	0	**474**	1159
Total Volume	0	0	0	0	1001	1463	0	2464	81	0	181	262	641	1136	0	1777	4503
% App. Total	0	0	0		40.6	59.4	0		30.9	0	69.1		36.1	63.9	0		
PHF	.000	.000	.000	.000	.881	.945	.000	.918	.880	.000	.854	.949	.965	.890	.000	.937	.955



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

City: IRVINE
N-S Direction: RED HILL AVENUE
E-W Direction: DYER RD / BARRANCA PKWY

File Name : H1405090
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

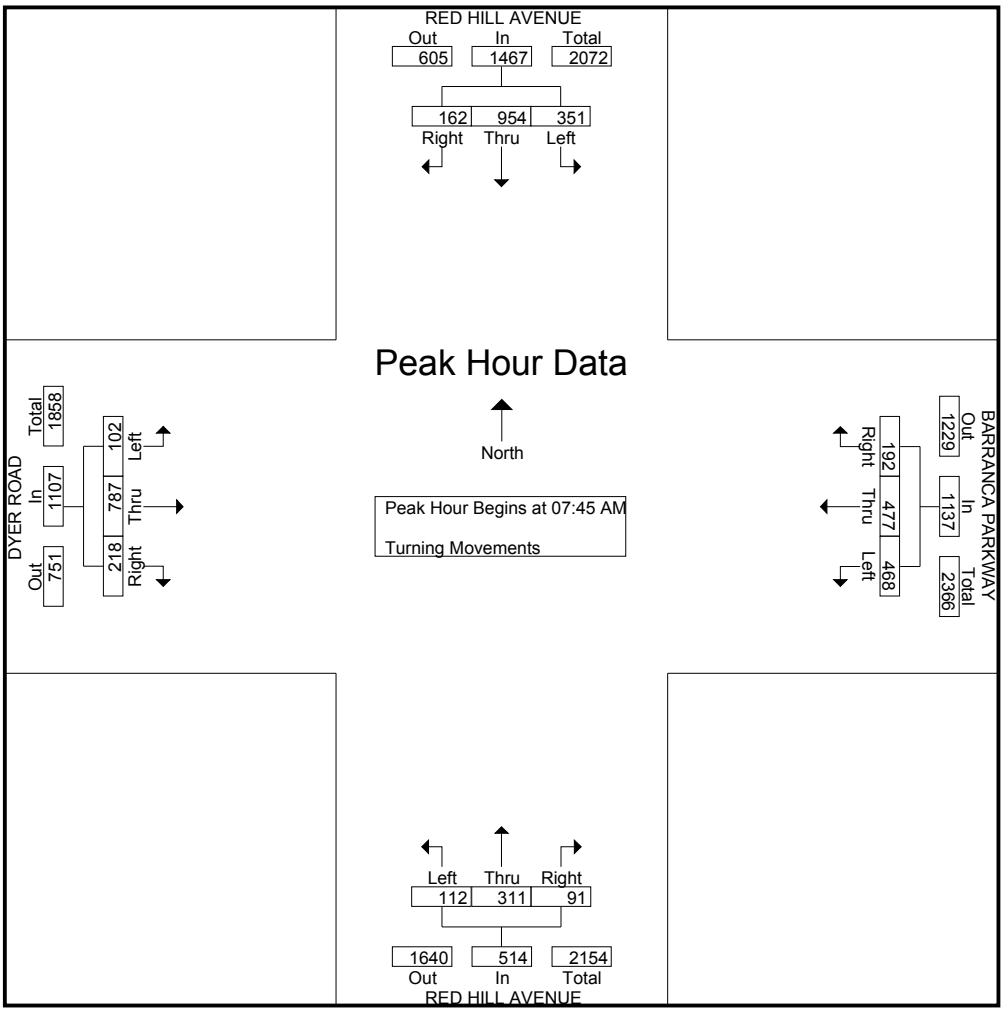
	RED HILL AVENUE Southbound			BARRANCA PARKWAY Westbound			RED HILL AVENUE Northbound			DYER ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	22	163	49	33	98	48	15	39	23	57	159	20	726
07:15 AM	16	155	76	42	144	61	25	67	23	47	216	22	894
07:30 AM	27	195	78	47	137	89	29	65	24	65	200	36	992
07:45 AM	32	268	113	53	110	110	23	70	29	61	239	31	1139
Total	97	781	316	175	489	308	92	241	99	230	814	109	3751
08:00 AM	29	209	79	52	119	111	23	100	25	58	177	20	1002
08:15 AM	47	265	95	41	121	119	20	70	24	54	205	22	1083
08:30 AM	54	212	64	46	127	128	25	71	34	45	166	29	1001
08:45 AM	25	157	80	50	112	163	22	65	33	54	174	25	960
Total	155	843	318	189	479	521	90	306	116	211	722	96	4046
*** BREAK ***													
04:00 PM	21	68	63	108	219	35	91	396	90	29	149	47	1316
04:15 PM	33	99	55	115	200	21	102	374	71	17	136	30	1253
04:30 PM	27	97	75	130	259	30	87	427	87	18	164	40	1441
04:45 PM	22	95	77	122	186	41	92	463	72	28	214	30	1442
Total	103	359	270	475	864	127	372	1660	320	92	663	147	5452
05:00 PM	37	136	84	130	255	33	94	447	102	31	184	62	1595
05:15 PM	34	109	94	105	187	32	94	467	93	14	279	69	1577
05:30 PM	30	114	82	115	240	29	83	452	91	15	190	54	1495
05:45 PM	18	94	54	84	189	42	109	504	79	23	188	41	1425
Total	119	453	314	434	871	136	380	1870	365	83	841	226	6092
Grand Total	474	2436	1218	1273	2703	1092	934	4077	900	616	3040	578	19341
Apprch %	11.5	59	29.5	25.1	53.3	21.5	15.8	69	15.2	14.5	71.8	13.7	
Total %	2.5	12.6	6.3	6.6	14	5.6	4.8	21.1	4.7	3.2	15.7	3	

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

City: IRVINE
N-S Direction: RED HILL AVENUE
E-W Direction: DYER RD / BARRANCA PKWY

File Name : H1405090
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	RED HILL AVENUE Southbound				BARRANCA PARKWAY Westbound				RED HILL AVENUE Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	32	**268**	**113**	**413**	**53**	110	110	273	23	70	29	122	**61**	**239**	**31**	**331**	**1139**
08:00 AM	29	209	79	317	52	119	111	282	23	**100**	25	**148**	58	177	20	255	1002
08:15 AM	47	265	95	407	41	121	119	281	20	70	24	114	54	205	22	281	1083
08:30 AM	**54**	212	64	330	46	**127**	**128**	**301**	**25**	71	**34**	130	45	166	29	240	1001
Total Volume	162	954	351	1467	192	477	468	1137	91	311	112	514	218	787	102	1107	4225
% App. Total	11	65	23.9		16.9	42	41.2		17.7	60.5	21.8		19.7	71.1	9.2		
PHF	.750	.890	.777	.888	.906	.939	.914	.944	.910	.778	.824	.868	.893	.823	.823	.836	.927

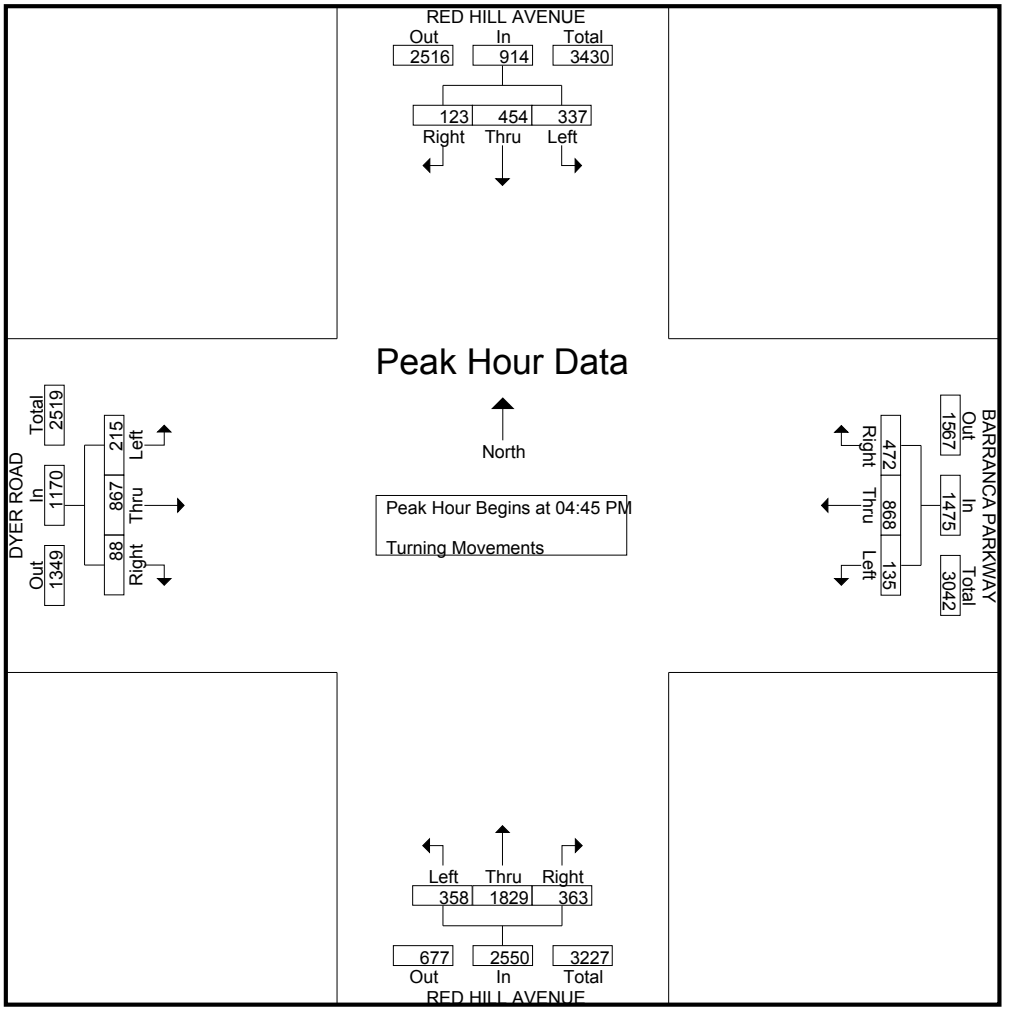


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: RED HILL AVENUE
E-W Direction: DYER RD / BARRANCA PKWY

File Name : H1405090
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	RED HILL AVENUE Southbound				BARRANCA PARKWAY Westbound				RED HILL AVENUE Northbound				DYER ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	22	95	77	194	122	186	**41**	349	92	463	72	627	28	214	30	272	1442
05:00 PM	**37**	**136**	84	**257**	**130**	**255**	33	**418**	**94**	447	**102**	643	**31**	184	62	277	**1595**
05:15 PM	34	109	**94**	237	105	187	32	324	94	**467**	93	**654**	14	**279**	**69**	**362**	1577
05:30 PM	30	114	82	226	115	240	29	384	83	452	91	626	15	190	54	259	1495
Total Volume	123	454	337	914	472	868	135	1475	363	1829	358	2550	88	867	215	1170	6109
% App. Total	13.5	49.7	36.9		32	58.8	9.2		14.2	71.7	14		7.5	74.1	18.4		
PHF	.831	.835	.896	.889	.908	.851	.823	.882	.965	.979	.877	.975	.710	.777	.779	.808	.958



City: IRVINE
N-S Direction: ASTON STREET
E-W Direction: BARRANCA PARKWAY

File Name : H1405091
Site Code : 00005701
Start Date : 6/11/2014
Page No : 1

Groups Printed- Turning Movements

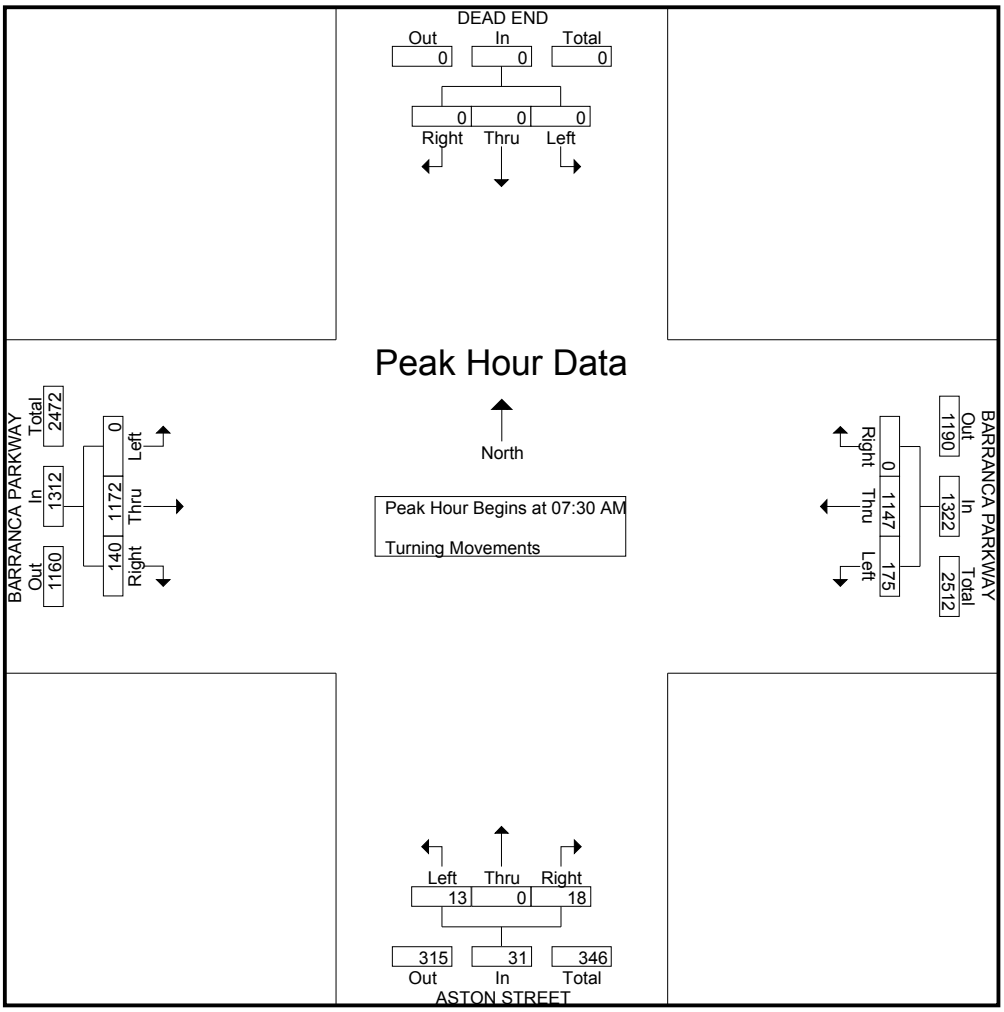
	DEAD END Southbound			BARRANCA PARKWAY Westbound			ASTON STREET Northbound			BARRANCA PARKWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	156	22	6	0	4	29	267	0	484
07:15 AM	0	0	0	0	205	24	4	0	13	24	268	0	538
07:30 AM	0	0	0	0	238	34	2	0	7	42	287	0	610
07:45 AM	0	0	0	0	297	42	1	0	2	33	316	0	691
Total	0	0	0	0	896	122	13	0	26	128	1138	0	2323
08:00 AM	0	0	0	0	303	53	11	0	2	42	299	0	710
08:15 AM	0	0	0	0	309	46	4	0	2	23	270	0	654
08:30 AM	0	0	0	0	285	43	3	0	2	28	233	0	594
08:45 AM	0	0	0	0	264	34	6	0	1	19	220	0	544
Total	0	0	0	0	1161	176	24	0	7	112	1022	0	2502
*** BREAK ***													
04:00 PM	0	0	0	0	338	8	18	0	7	9	222	0	602
04:15 PM	0	0	0	0	430	6	13	0	6	5	316	0	776
04:30 PM	0	0	0	0	338	5	16	0	16	3	313	0	691
04:45 PM	0	0	0	0	365	9	14	0	6	8	337	0	739
Total	0	0	0	0	1471	28	61	0	35	25	1188	0	2808
05:00 PM	0	0	0	0	402	5	34	0	8	5	350	0	804
05:15 PM	0	0	0	0	422	3	25	0	15	10	425	0	900
05:30 PM	0	0	0	0	363	2	32	0	19	29	383	0	828
05:45 PM	0	0	0	0	398	4	23	0	7	12	349	0	793
Total	0	0	0	0	1585	14	114	0	49	56	1507	0	3325
Grand Total	0	0	0	0	5113	340	212	0	117	321	4855	0	10958
Apprch %	0	0	0	0	93.8	6.2	64.4	0	35.6	6.2	93.8	0	
Total %	0	0	0	0	46.7	3.1	1.9	0	1.1	2.9	44.3	0	

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

City: IRVINE
N-S Direction: ASTON STREET
E-W Direction: BARRANCA PARKWAY

File Name : H1405091
Site Code : 00005701
Start Date : 6/11/2014
Page No : 2

	DEAD END Southbound				BARRANCA PARKWAY Westbound				ASTON STREET Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	238	34	272	2	0	**7**	9	**42**	287	0	329	610
07:45 AM	0	0	0	0	0	297	42	339	1	0	2	3	33	**316**	0	**349**	691
08:00 AM	0	0	0	0	0	303	**53**	**356**	**11**	0	2	**13**	42	299	0	341	**710**
08:15 AM	0	0	0	0	0	**309**	46	355	4	0	2	6	23	270	0	293	654
Total Volume	0	0	0	0	0	1147	175	1322	18	0	13	31	140	1172	0	1312	2665
% App. Total	0	0	0		0	86.8	13.2		58.1	0	41.9		10.7	89.3	0		
PHF	.000	.000	.000	.000	.000	.928	.825	.928	.409	.000	.464	.596	.833	.927	.000	.940	.938

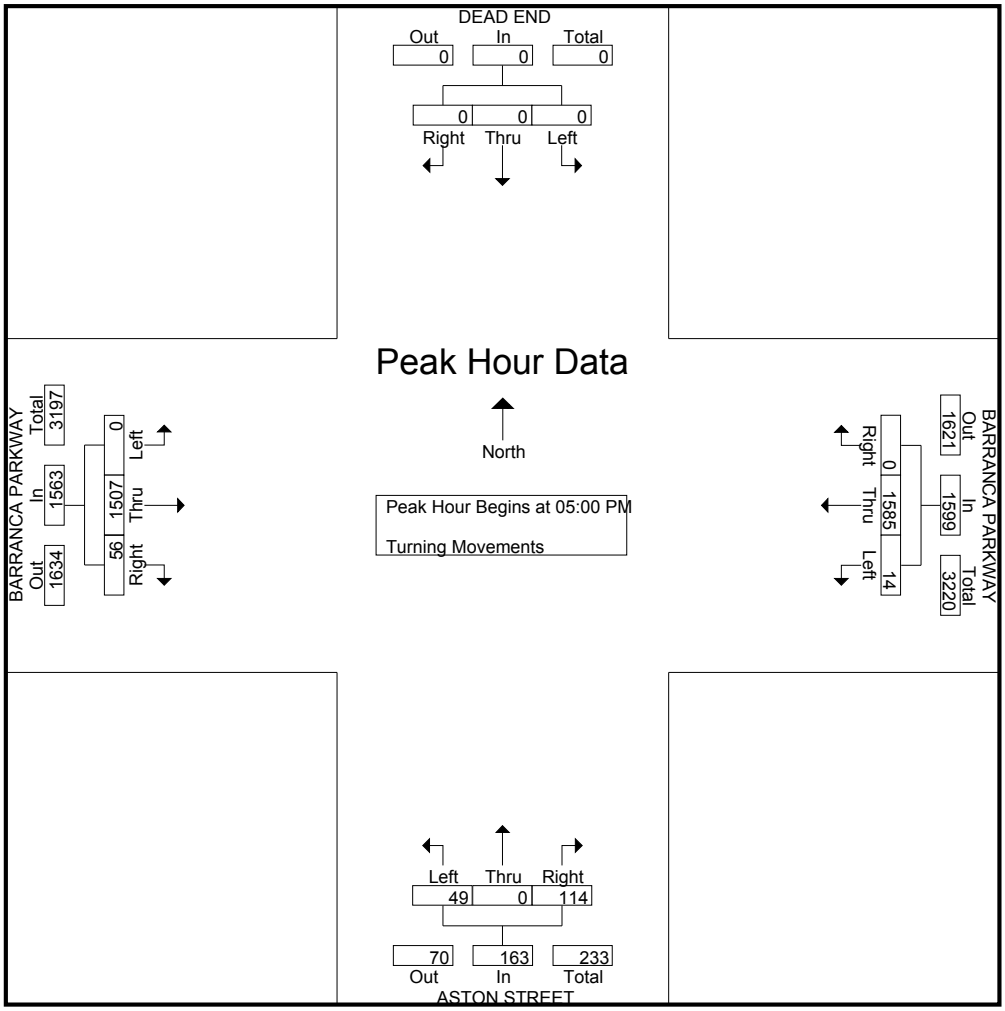


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: ASTON STREET
E-W Direction: BARRANCA PARKWAY

File Name : H1405091
Site Code : 00005701
Start Date : 6/11/2014
Page No : 3

	DEAD END Southbound				BARRANCA PARKWAY Westbound				ASTON STREET Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	402	**5**	407	**34**	0	8	42	5	350	0	355	804
05:15 PM	0	0	0	0	0	**422**	3	**425**	25	0	15	40	10	**425**	0	**435**	**900**
05:30 PM	0	0	0	0	0	363	2	365	32	0	**19**	**51**	**29**	383	0	412	828
05:45 PM	0	0	0	0	0	398	4	402	23	0	7	30	12	349	0	361	793
Total Volume	0	0	0	0	0	1585	14	1599	114	0	49	163	56	1507	0	1563	3325
% App. Total	0	0	0		0	99.1	0.9		69.9	0	30.1		3.6	96.4	0		
PHF	.000	.000	.000	.000	.000	.939	.700	.941	.838	.000	.645	.799	.483	.886	.000	.898	.924



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

City: IRVINE
N-S Direction: ARMSTRONG AVENUE
E-W Direction: BARRANCA PARKWAY

File Name : H1405092
Site Code : 00000561
Start Date : 6/3/2014
Page No : 1

Groups Printed- Turning Movements

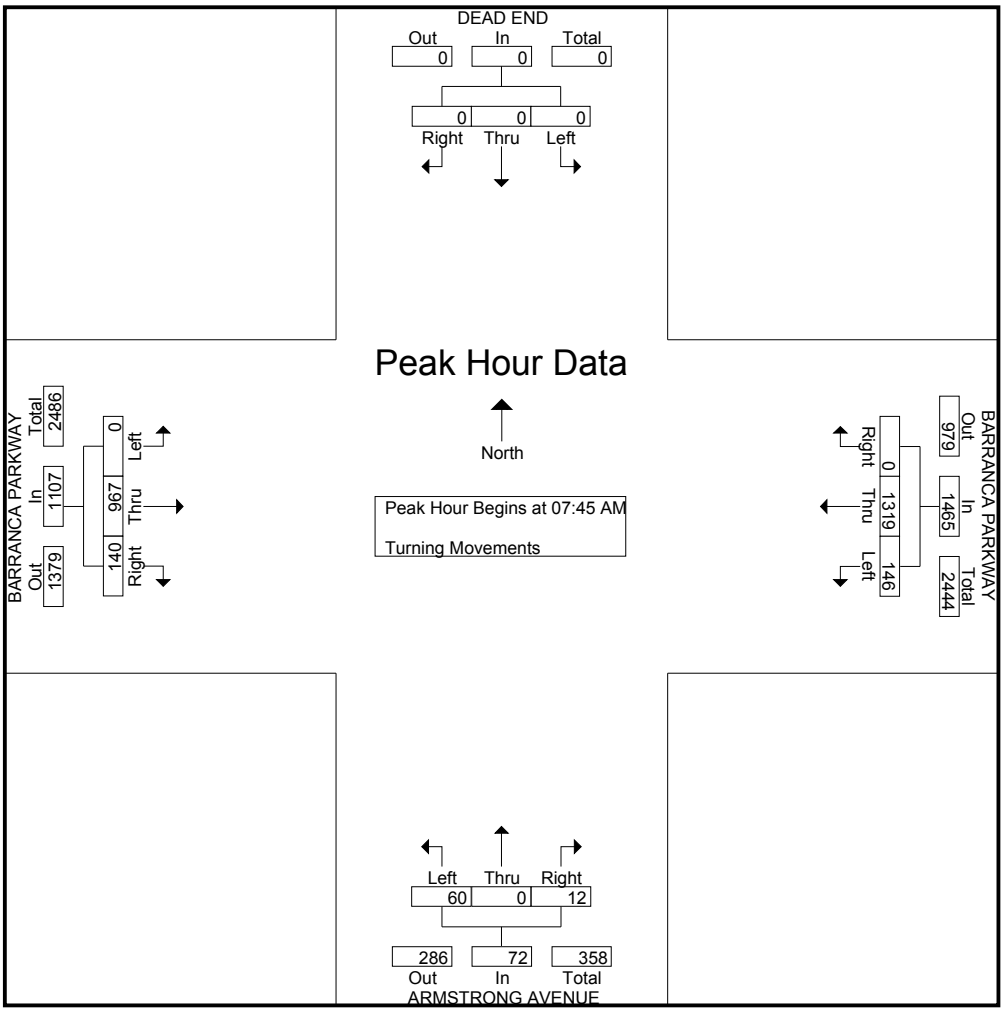
	DEAD END Southbound			BARRANCA PARKWAY Westbound			ARMSTRONG AVENUE Northbound			BARRANCA PARKWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	158	16	6	0	10	26	259	0	475
07:15 AM	0	0	0	0	212	12	2	0	23	35	223	0	507
07:30 AM	0	0	0	0	241	28	2	0	17	33	250	0	571
07:45 AM	0	0	0	0	330	22	1	0	13	37	275	0	678
Total	0	0	0	0	941	78	11	0	63	131	1007	0	2231
08:00 AM	0	0	0	0	339	48	2	0	10	39	248	0	686
08:15 AM	0	0	0	0	317	35	4	0	13	34	226	0	629
08:30 AM	0	0	0	0	333	41	5	0	24	30	218	0	651
08:45 AM	0	0	0	0	258	23	8	0	8	19	204	0	520
Total	0	0	0	0	1247	147	19	0	55	122	896	0	2486
*** BREAK ***													
04:00 PM	0	0	0	0	215	34	33	0	65	21	256	0	624
04:15 PM	0	0	0	0	301	27	42	0	66	24	305	0	765
04:30 PM	0	0	0	0	307	19	48	0	77	18	278	0	747
04:45 PM	0	0	0	0	314	17	42	0	89	12	377	0	851
Total	0	0	0	0	1137	97	165	0	297	75	1216	0	2987
05:00 PM	0	0	0	0	298	11	45	0	96	4	344	0	798
05:15 PM	0	0	0	0	354	10	82	0	136	19	465	0	1066
05:30 PM	0	0	0	0	303	27	70	0	107	11	350	0	868
05:45 PM	0	0	0	0	290	16	63	0	84	13	456	0	922
Total	0	0	0	0	1245	64	260	0	423	47	1615	0	3654
Grand Total	0	0	0	0	4570	386	455	0	838	375	4734	0	11358
Apprch %	0	0	0	0	92.2	7.8	35.2	0	64.8	7.3	92.7	0	
Total %	0	0	0	0	40.2	3.4	4	0	7.4	3.3	41.7	0	

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

City: IRVINE
N-S Direction: ARMSTRONG AVENUE
E-W Direction: BARRANCA PARKWAY

File Name : H1405092
Site Code : 00000561
Start Date : 6/3/2014
Page No : 2

	DEAD END Southbound				BARRANCA PARKWAY Westbound				ARMSTRONG AVENUE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	330	22	352	1	0	13	14	37	**275**	0	**312**	678
08:00 AM	0	0	0	0	0	**339**	**48**	**387**	2	0	10	12	**39**	248	0	287	**686**
08:15 AM	0	0	0	0	0	317	35	352	4	0	13	17	34	226	0	260	629
08:30 AM	0	0	0	0	0	333	41	374	**5**	0	**24**	**29**	30	218	0	248	651
Total Volume	0	0	0	0	0	1319	146	1465	12	0	60	72	140	967	0	1107	2644
% App. Total	0	0	0		0	90	10		16.7	0	83.3		12.6	87.4	0		
PHF	.000	.000	.000	.000	.000	.973	.760	.946	.600	.000	.625	.621	.897	.879	.000	.887	.964

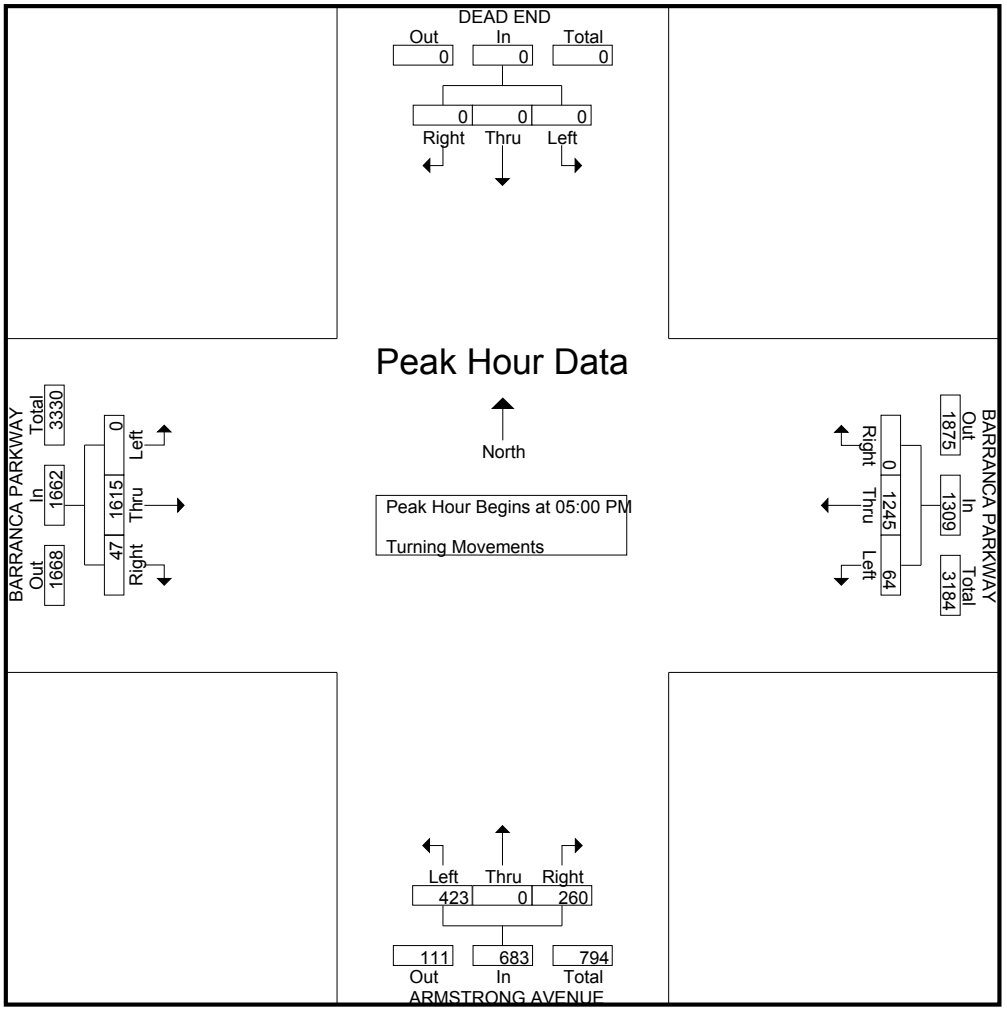


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: ARMSTRONG AVENUE
E-W Direction: BARRANCA PARKWAY

File Name : H1405092
Site Code : 00000561
Start Date : 6/3/2014
Page No : 3

	DEAD END Southbound				BARRANCA PARKWAY Westbound				ARMSTRONG AVENUE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	298	11	309	45	0	96	141	4	344	0	348	798
05:15 PM	0	0	0	0	0	**354**	10	**364**	**82**	0	**136**	**218**	**19**	**465**	0	**484**	**1066**
05:30 PM	0	0	0	0	0	303	**27**	330	70	0	107	177	11	350	0	361	868
05:45 PM	0	0	0	0	0	290	16	306	63	0	84	147	13	456	0	469	922
Total Volume	0	0	0	0	0	1245	64	1309	260	0	423	683	47	1615	0	1662	3654
% App. Total	0	0	0		0	95.1	4.9		38.1	0	61.9		2.8	97.2	0		
PHF	.000	.000	.000	.000	.000	.879	.593	.899	.793	.000	.778	.783	.618	.868	.000	.858	.857



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

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: BARRANCA PARKWAY

File Name : h1405093
Site Code : 00000000
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

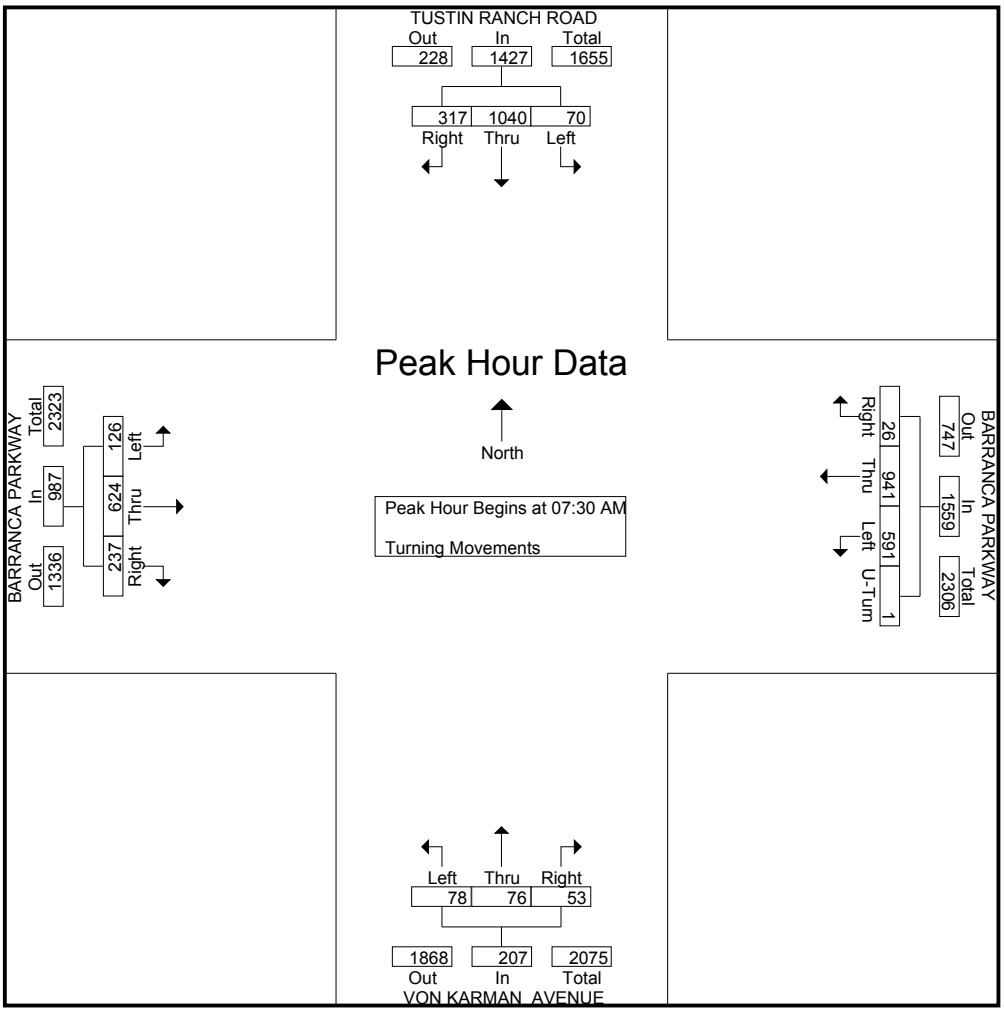
	TUSTIN RANCH ROAD Southbound			BARRANCA PARKWAY Westbound				VON KARMAN AVENUE Northbound			BARRANCA PARKWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	38	146	12	1	147	124	1	9	14	15	70	122	38	737
07:15 AM	35	254	15	6	215	112	0	7	17	17	88	134	28	928
07:30 AM	55	234	14	3	248	142	0	11	14	23	78	160	28	1010
07:45 AM	109	314	23	8	257	131	0	13	20	20	58	189	39	1181
Total	237	948	64	18	867	509	1	40	65	75	294	605	133	3856
08:00 AM	82	233	20	8	232	169	0	8	18	18	32	143	30	993
08:15 AM	71	259	13	7	204	149	1	21	24	17	69	132	29	996
08:30 AM	66	242	19	9	224	169	0	17	27	19	49	128	30	999
08:45 AM	60	239	15	12	202	144	1	12	18	19	43	121	31	917
Total	279	973	67	36	862	631	2	58	87	73	193	524	120	3905
*** BREAK ***														
04:00 PM	95	70	18	19	168	67	0	75	169	81	30	203	81	1076
04:15 PM	64	65	10	46	174	51	2	69	194	68	22	216	109	1090
04:30 PM	58	68	20	36	149	59	2	75	215	88	25	270	89	1154
04:45 PM	65	61	13	41	160	50	3	75	270	72	24	253	107	1194
Total	282	264	61	142	651	227	7	294	848	309	101	942	386	4514
05:00 PM	81	63	12	38	188	55	1	83	283	82	25	379	103	1393
05:15 PM	69	82	15	48	189	63	2	121	303	67	24	368	87	1438
05:30 PM	73	73	16	54	218	54	1	84	270	64	20	363	96	1386
05:45 PM	60	55	19	34	166	44	3	89	269	61	36	370	104	1310
Total	283	273	62	174	761	216	7	377	1125	274	105	1480	390	5527
Grand Total	1081	2458	254	370	3141	1583	17	769	2125	731	693	3551	1029	17802
Apprch %	28.5	64.8	6.7	7.2	61.5	31	0.3	21.2	58.6	20.2	13.1	67.3	19.5	
Total %	6.1	13.8	1.4	2.1	17.6	8.9	0.1	4.3	11.9	4.1	3.9	19.9	5.8	

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

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: BARRANCA PARKWAY

File Name : h1405093
Site Code : 00000000
Start Date : 6/12/2014
Page No : 2

	TUSTIN RANCH ROAD Southbound				BARRANCA PARKWAY Westbound					VON KARMAN AVENUE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	55	234	14	303	3	248	142	0	393	11	14	**23**	48	**78**	160	28	266	1010
07:45 AM	**109**	**314**	**23**	**446**	**8**	**257**	131	0	396	13	20	20	53	58	**189**	**39**	**286**	**1181**
08:00 AM	82	233	20	335	8	232	**169**	0	**409**	8	18	18	44	32	143	30	205	993
08:15 AM	71	259	13	343	7	204	149	**1**	361	**21**	**24**	17	**62**	69	132	29	230	996
Total Volume	317	1040	70	1427	26	941	591	1	1559	53	76	78	207	237	624	126	987	4180
% App. Total	22.2	72.9	4.9		1.7	60.4	37.9	0.1		25.6	36.7	37.7		24	63.2	12.8		
PHF	.727	.828	.761	.800	.813	.915	.874	.250	.953	.631	.792	.848	.835	.760	.825	.808	.863	.885

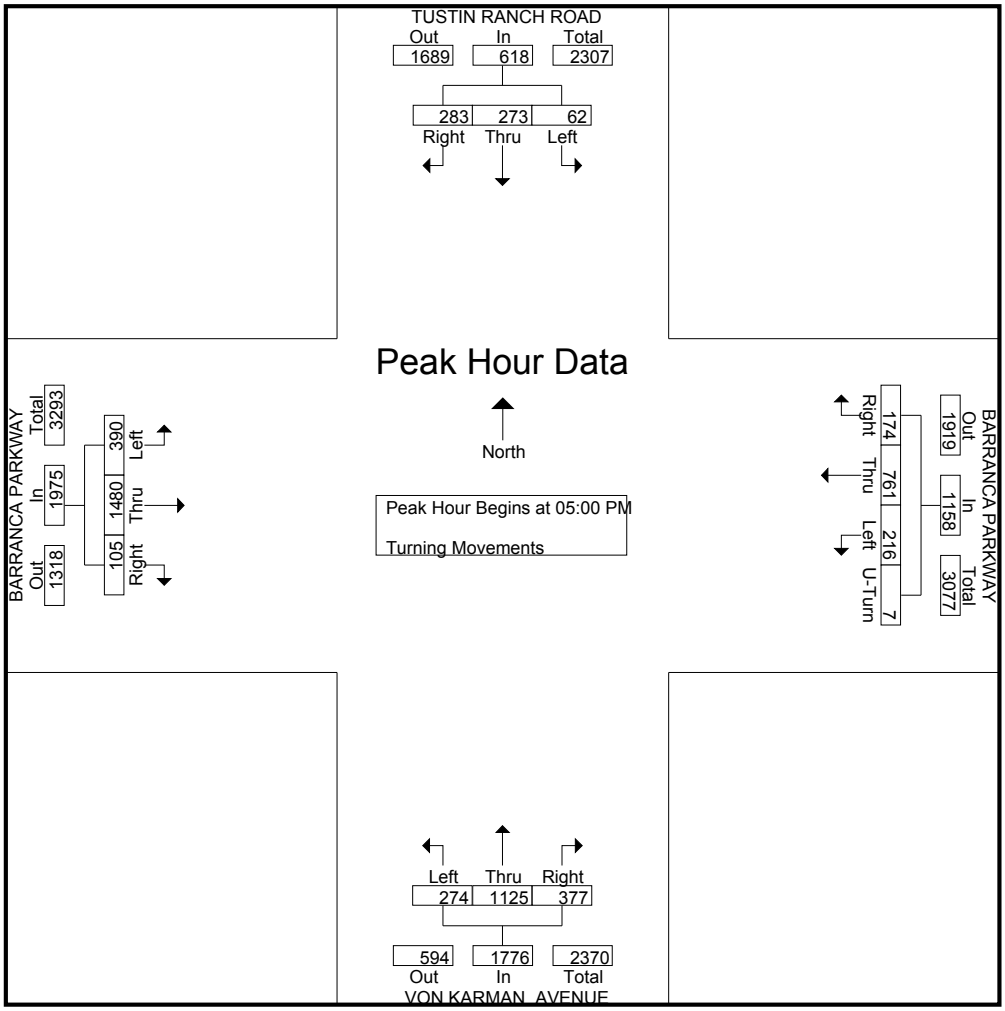


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: TUSTIN RANCH ROAD
E-W Direction: BARRANCA PARKWAY

File Name : h1405093
Site Code : 00000000
Start Date : 6/12/2014
Page No : 3

	TUSTIN RANCH ROAD Southbound				BARRANCA PARKWAY Westbound					VON KARMAN AVENUE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	**81**	63	12	156	38	188	55	1	282	83	283	**82**	448	25	**379**	103	507	1393
05:15 PM	69	**82**	15	**166**	48	189	**63**	2	302	**121**	**303**	67	**491**	24	368	87	479	**1438**
05:30 PM	73	73	16	162	**54**	**218**	54	1	**327**	84	270	64	418	20	363	96	479	1386
05:45 PM	60	55	**19**	134	34	166	44	**3**	247	89	269	61	419	**36**	370	**104**	**510**	1310
Total Volume	283	273	62	618	174	761	216	7	1158	377	1125	274	1776	105	1480	390	1975	5527
% App. Total	45.8	44.2	10		15	65.7	18.7	0.6		21.2	63.3	15.4		5.3	74.9	19.7		
PHF	.873	.832	.816	.931	.806	.873	.857	.583	.885	.779	.928	.835	.904	.729	.976	.938	.968	.961



City: TUSTIN
N-S Direction: THE DISTRICT
E-W Direction: BARRANCA PARKWAY

File Name : H1405094
Site Code : 00000000
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

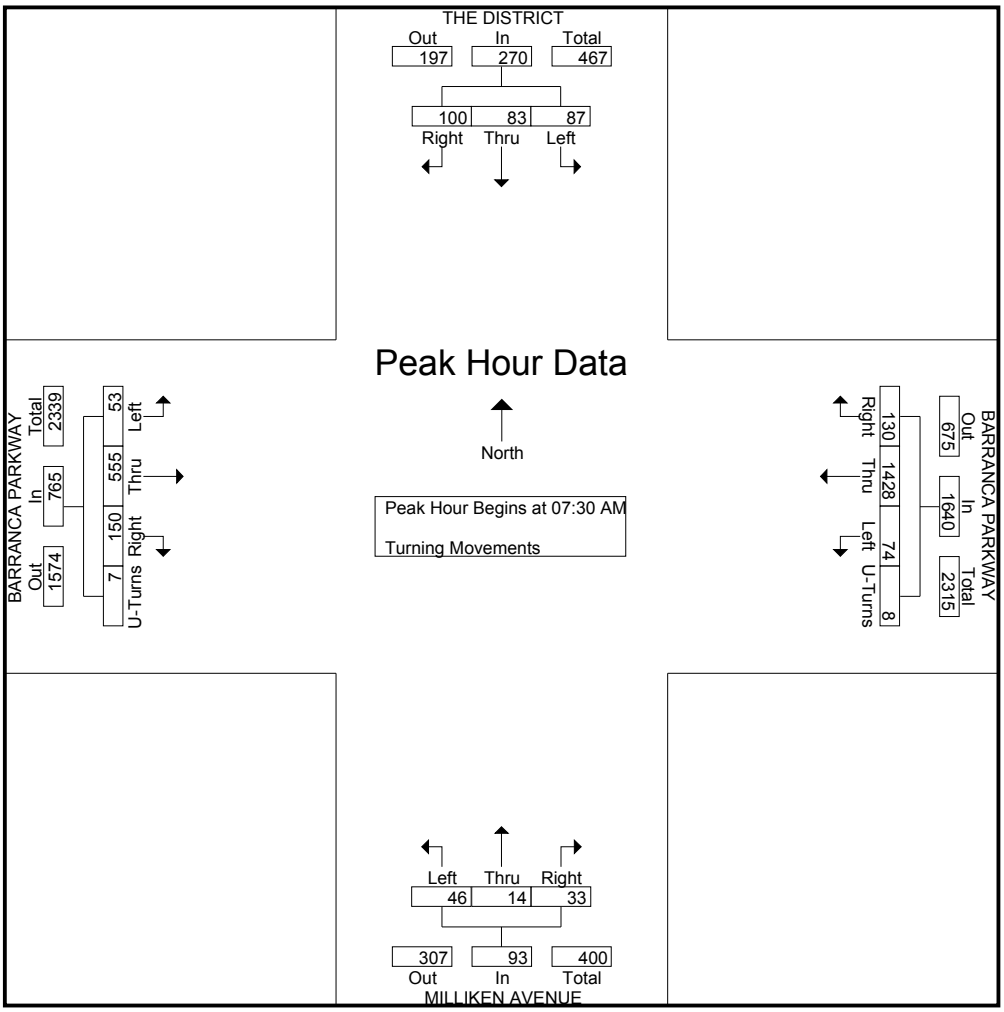
	THE DISTRICT Southbound			BARRANCA PARKWAY Westbound				MILLIKEN AVENUE Northbound			BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turns	Right	Thru	Left	Right	Thru	Left	U-Turns	Int. Total
07:00 AM	20	6	14	26	240	12	0	14	5	20	45	100	10	0	512
07:15 AM	21	13	13	29	315	17	3	11	3	14	37	96	16	0	588
07:30 AM	18	17	24	25	330	16	1	11	3	19	37	162	8	2	673
07:45 AM	35	30	24	32	369	23	3	7	4	12	38	141	17	1	736
Total	94	66	75	112	1254	68	7	43	15	65	157	499	51	3	2509
08:00 AM	32	17	17	43	332	16	1	6	3	10	38	142	8	1	666
08:15 AM	15	19	22	30	397	19	3	9	4	5	37	110	20	3	693
08:30 AM	33	15	21	57	329	21	1	6	2	17	30	123	14	4	673
08:45 AM	26	10	30	34	327	15	0	9	8	13	27	136	14	1	650
Total	106	61	90	164	1385	71	5	30	17	45	132	511	56	9	2682
*** BREAK ***															
04:00 PM	38	20	107	108	147	5	0	36	12	37	5	265	25	4	809
04:15 PM	54	14	64	123	171	4	0	22	23	32	13	226	41	1	788
04:30 PM	46	12	84	138	204	9	0	42	24	49	19	336	45	2	1010
04:45 PM	44	14	89	148	184	12	0	28	20	33	12	281	47	1	913
Total	182	60	344	517	706	30	0	128	79	151	49	1108	158	8	3520
05:00 PM	36	11	84	75	206	6	2	57	38	55	22	376	42	1	1011
05:15 PM	53	11	96	85	204	14	1	40	28	29	36	456	58	4	1115
05:30 PM	39	11	87	84	167	5	1	30	29	43	20	354	72	2	944
05:45 PM	58	11	86	127	207	5	1	19	32	23	22	396	45	5	1037
Total	186	44	353	371	784	30	5	146	127	150	100	1582	217	12	4107
Grand Total	568	231	862	1164	4129	199	17	347	238	411	438	3700	482	32	12818
Apprch %	34.2	13.9	51.9	21.1	75	3.6	0.3	34.8	23.9	41.3	9.4	79.5	10.4	0.7	
Total %	4.4	1.8	6.7	9.1	32.2	1.6	0.1	2.7	1.9	3.2	3.4	28.9	3.8	0.2	

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

City: TUSTIN
N-S Direction: THE DISTRICT
E-W Direction: BARRANCA PARKWAY

File Name : H1405094
Site Code : 00000000
Start Date : 6/12/2014
Page No : 2

	THE DISTRICT Southbound				BARRANCA PARKWAY Westbound					MILLIKEN AVENUE Northbound				BARRANCA PARKWAY Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	18	17	**24**	59	25	330	16	1	372	**11**	3	**19**	**33**	37	**162**	8	2	**209**	673
07:45 AM	**35**	**30**	24	**89**	32	369	**23**	**3**	427	7	**4**	12	23	**38**	141	17	1	197	**736**
08:00 AM	32	17	17	66	**43**	332	16	1	392	6	3	10	19	38	142	8	1	189	666
08:15 AM	15	19	22	56	30	**397**	19	3	**449**	9	4	5	18	37	110	**20**	**3**	170	693
Total Volume	100	83	87	270	130	1428	74	8	1640	33	14	46	93	150	555	53	7	765	2768
% App. Total	37	30.7	32.2		7.9	87.1	4.5	0.5		35.5	15.1	49.5		19.6	72.5	6.9	0.9		
PHF	.714	.692	.906	.758	.756	.899	.804	.667	.913	.750	.875	.605	.705	.987	.856	.663	.583	.915	.940

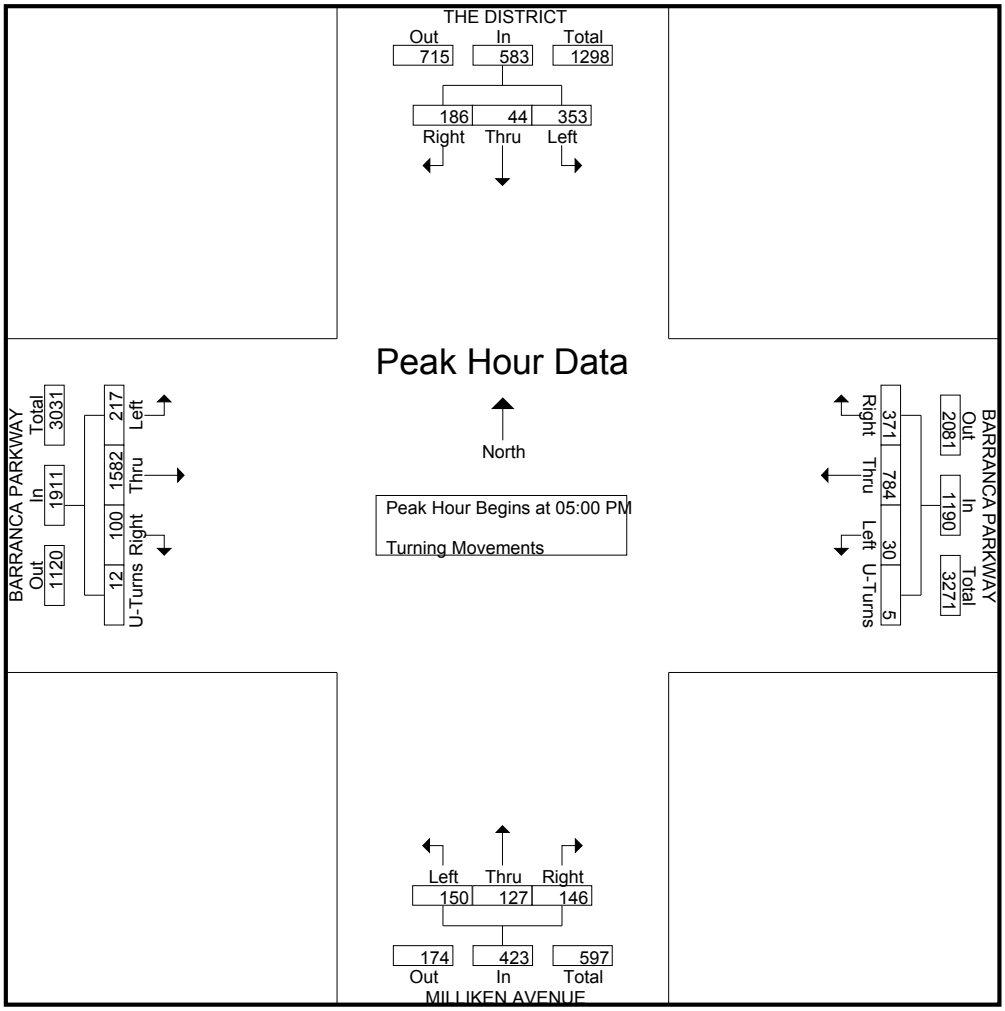


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: TUSTIN
N-S Direction: THE DISTRICT
E-W Direction: BARRANCA PARKWAY

File Name : H1405094
Site Code : 00000000
Start Date : 6/12/2014
Page No : 3

	THE DISTRICT Southbound				BARRANCA PARKWAY Westbound					MILLIKEN AVENUE Northbound				BARRANCA PARKWAY Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	36	**11**	84	131	75	206	6	**2**	289	**57**	**38**	**55**	**150**	22	376	42	1	441	1011
05:15 PM	53	11	**96**	**160**	85	204	**14**	1	304	40	28	29	97	**36**	**456**	58	4	**554**	**1115**
05:30 PM	39	11	87	137	84	167	5	1	257	30	29	43	102	20	354	**72**	2	448	944
05:45 PM	**58**	11	86	155	**127**	**207**	5	1	**340**	19	32	23	74	22	396	45	**5**	468	1037
Total Volume	186	44	353	583	371	784	30	5	1190	146	127	150	423	100	1582	217	12	1911	4107
% App. Total	31.9	7.5	60.5		31.2	65.9	2.5	0.4		34.5	30	35.5		5.2	82.8	11.4	0.6		
PHF	.802	1.00	.919	.911	.730	.947	.536	.625	.875	.640	.836	.682	.705	.694	.867	.753	.600	.862	.921



City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: BARRANCA PARKWAY

File Name : h1404047
Site Code : 136
Start Date : 5/21/2014
Page No : 1

Groups Printed- Turning Movements

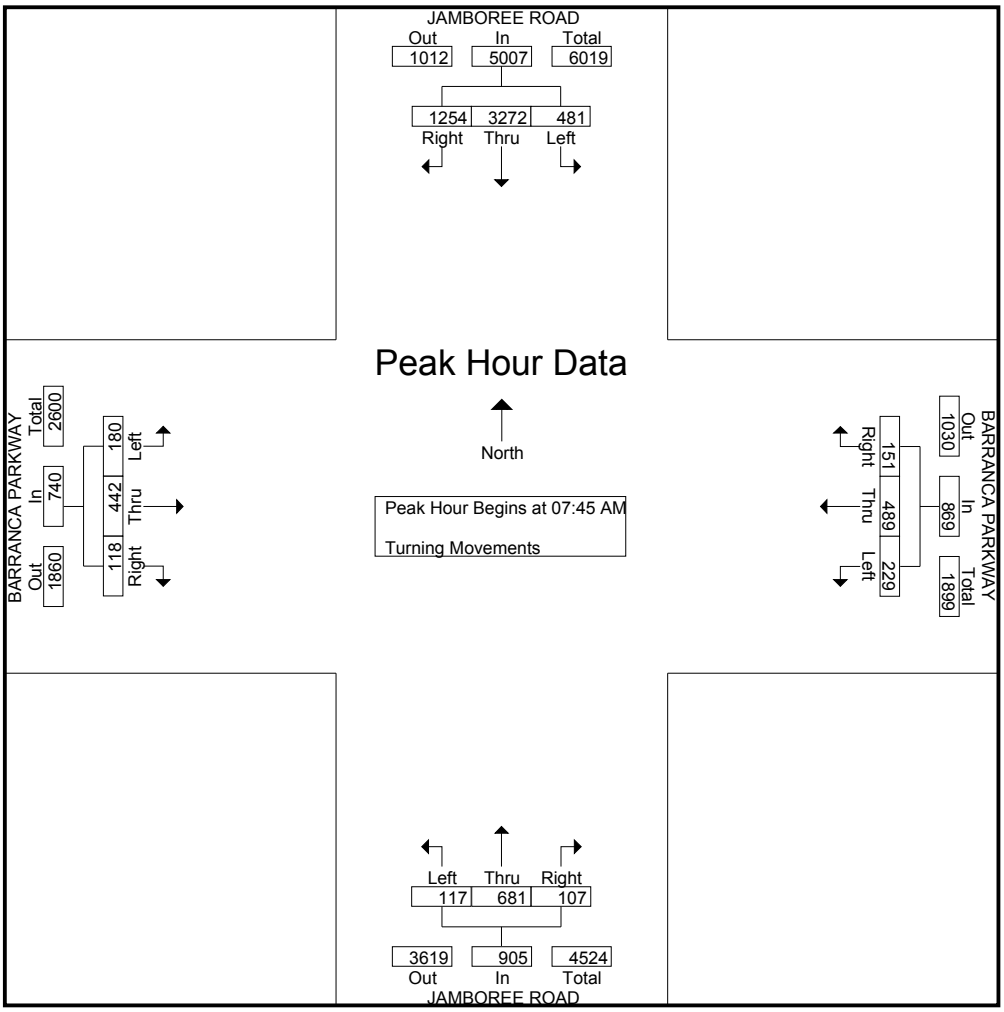
	JAMBOREE ROAD Southbound			BARRANCA PARKWAY Westbound			JAMBOREE ROAD Northbound			BARRANCA PARKWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	175	402	66	35	73	34	22	80	31	15	84	28	1045
07:15 AM	225	591	93	30	67	61	13	134	26	17	48	22	1327
07:30 AM	316	721	101	28	95	63	29	83	18	24	100	29	1607
07:45 AM	393	924	126	49	102	64	34	137	34	34	115	49	2061
Total	1109	2638	386	142	337	222	98	434	109	90	347	128	6040
08:00 AM	336	850	132	30	132	40	25	181	22	25	112	40	1925
08:15 AM	308	701	97	39	145	62	18	145	36	28	107	40	1726
08:30 AM	217	797	126	33	110	63	30	218	25	31	108	51	1809
08:45 AM	227	725	123	29	139	53	22	182	36	32	120	45	1733
Total	1088	3073	478	131	526	218	95	726	119	116	447	176	7193
*** BREAK ***													
04:00 PM	54	258	65	84	113	26	27	635	116	58	159	205	1800
04:15 PM	58	274	66	74	94	21	25	608	87	76	133	204	1720
04:30 PM	56	269	85	59	152	35	24	640	125	62	171	237	1915
04:45 PM	55	254	52	100	125	20	46	742	116	62	199	272	2043
Total	223	1055	268	317	484	102	122	2625	444	258	662	918	7478
05:00 PM	49	285	75	66	139	40	25	645	105	59	195	294	1977
05:15 PM	74	348	84	82	175	36	18	691	106	66	222	280	2182
05:30 PM	53	295	73	84	169	27	26	731	73	55	227	316	2129
05:45 PM	56	293	74	102	211	29	25	709	113	52	157	250	2071
Total	232	1221	306	334	694	132	94	2776	397	232	801	1140	8359
Grand Total	2652	7987	1438	924	2041	674	409	6561	1069	696	2257	2362	29070
Apprch %	22	66.1	11.9	25.4	56.1	18.5	5.1	81.6	13.3	13.1	42.5	44.4	
Total %	9.1	27.5	4.9	3.2	7	2.3	1.4	22.6	3.7	2.4	7.8	8.1	

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

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: BARRANCA PARKWAY

File Name : h1404047
Site Code : 136
Start Date : 5/21/2014
Page No : 2

	JAMBOREE ROAD Southbound				BARRANCA PARKWAY Westbound				JAMBOREE ROAD Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**393**	**924**	126	**1443**	**49**	102	**64**	215	**34**	137	34	205	**34**	**115**	49	**198**	**2061**
08:00 AM	336	850	**132**	1318	30	132	40	202	25	181	22	228	25	112	40	177	1925
08:15 AM	308	701	97	1106	39	**145**	62	**246**	18	145	**36**	199	28	107	40	175	1726
08:30 AM	217	797	126	1140	33	110	63	206	30	**218**	25	**273**	31	108	**51**	190	1809
Total Volume	1254	3272	481	5007	151	489	229	869	107	681	117	905	118	442	180	740	7521
% App. Total	25	65.3	9.6		17.4	56.3	26.4		11.8	75.2	12.9		15.9	59.7	24.3		
PHF	.798	.885	.911	.867	.770	.843	.895	.883	.787	.781	.813	.829	.868	.961	.882	.934	.912

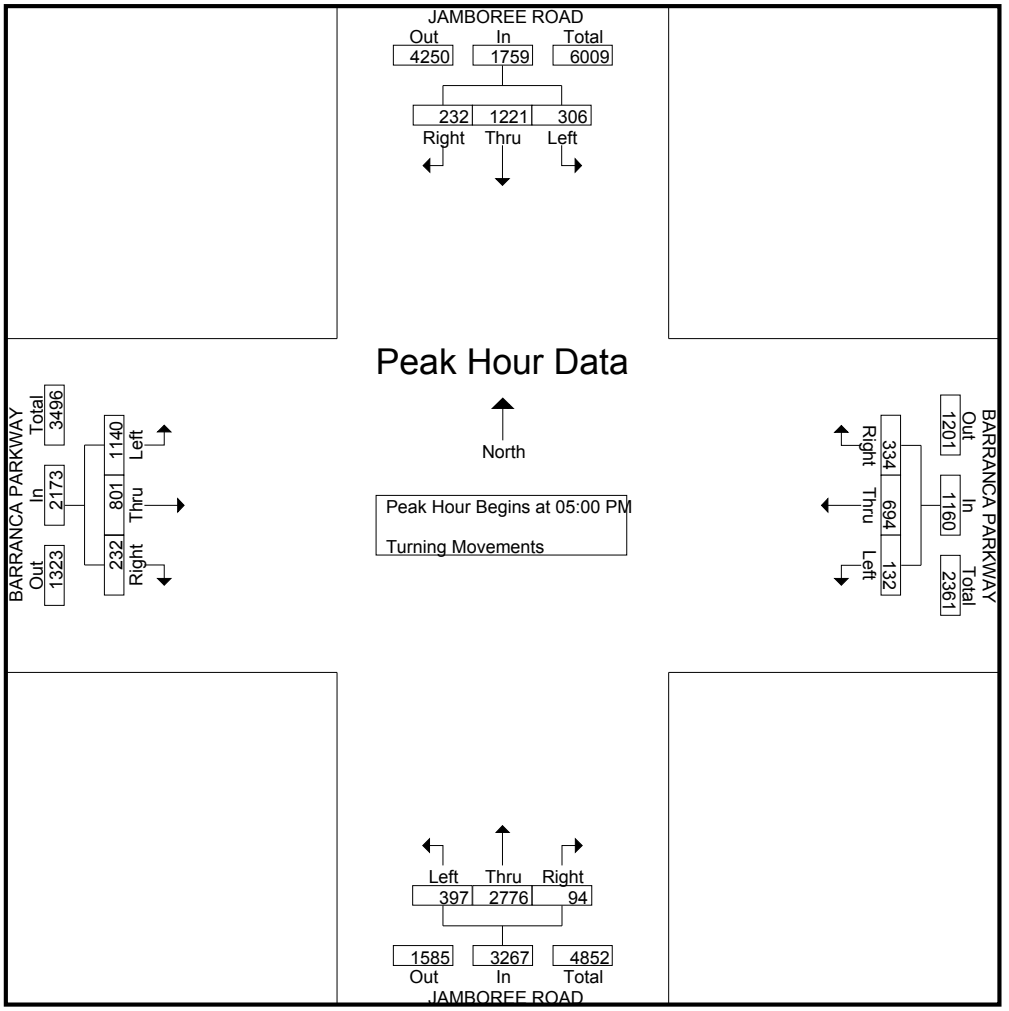


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: BARRANCA PARKWAY

File Name : h1404047
Site Code : 136
Start Date : 5/21/2014
Page No : 3

	JAMBOREE ROAD Southbound				BARRANCA PARKWAY Westbound				JAMBOREE ROAD Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	49	285	75	409	66	139	**40**	245	25	645	105	775	59	195	294	548	1977
05:15 PM	**74**	**348**	**84**	**506**	82	175	36	293	18	691	106	815	**66**	222	280	568	**2182**
05:30 PM	53	295	73	421	84	169	27	280	**26**	**731**	73	830	55	**227**	**316**	**598**	2129
05:45 PM	56	293	74	423	**102**	**211**	29	**342**	25	709	**113**	**847**	52	157	250	459	2071
Total Volume	232	1221	306	1759	334	694	132	1160	94	2776	397	3267	232	801	1140	2173	8359
% App. Total	13.2	69.4	17.4		28.8	59.8	11.4		2.9	85	12.2		10.7	36.9	52.5		
PHF	.784	.877	.911	.869	.819	.822	.825	.848	.904	.949	.878	.964	.879	.882	.902	.908	.958



City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: BARRANCA PARKWAY

File Name : H1405100
Site Code : 00005701
Start Date : 6/11/2014
Page No : 1

Groups Printed- Turning Movements

	HARVARD AVENUE Southbound			BARRANCA PARKWAY Westbound			HARVARD AVENUE Northbound			BARRANCA PARKWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	10	61	7	11	60	15	9	21	14	34	60	3	305
07:15 AM	23	48	7	4	75	16	7	31	15	30	70	7	333
07:30 AM	24	109	26	11	125	26	8	43	24	48	119	8	571
07:45 AM	74	125	35	11	142	34	11	54	41	51	77	13	668
Total	131	343	75	37	402	91	35	149	94	163	326	31	1877
08:00 AM	37	194	48	18	170	37	11	53	39	42	126	4	779
08:15 AM	32	134	43	11	195	51	17	34	18	31	111	8	685
08:30 AM	37	138	18	17	173	61	15	58	40	36	89	5	687
08:45 AM	27	112	28	18	153	42	9	50	38	31	117	16	641
Total	133	578	137	64	691	191	52	195	135	140	443	33	2792
*** BREAK ***													
04:00 PM	12	53	20	13	162	21	18	103	41	35	176	17	671
04:15 PM	13	71	25	20	171	27	31	180	37	50	153	29	807
04:30 PM	8	63	21	25	180	19	27	139	36	41	140	22	721
04:45 PM	12	67	24	28	185	21	33	209	52	47	185	30	893
Total	45	254	90	86	698	88	109	631	166	173	654	98	3092
05:00 PM	7	58	20	33	218	21	34	166	33	37	195	25	847
05:15 PM	23	83	32	45	181	23	41	231	67	44	184	69	1023
05:30 PM	8	67	25	25	216	30	41	213	61	62	258	33	1039
05:45 PM	9	92	29	23	182	14	49	220	54	57	216	29	974
Total	47	300	106	126	797	88	165	830	215	200	853	156	3883
Grand Total	356	1475	408	313	2588	458	361	1805	610	676	2276	318	11644
Apprch %	15.9	65.9	18.2	9.3	77	13.6	13	65	22	20.7	69.6	9.7	
Total %	3.1	12.7	3.5	2.7	22.2	3.9	3.1	15.5	5.2	5.8	19.5	2.7	

Transportation Studies, Inc.
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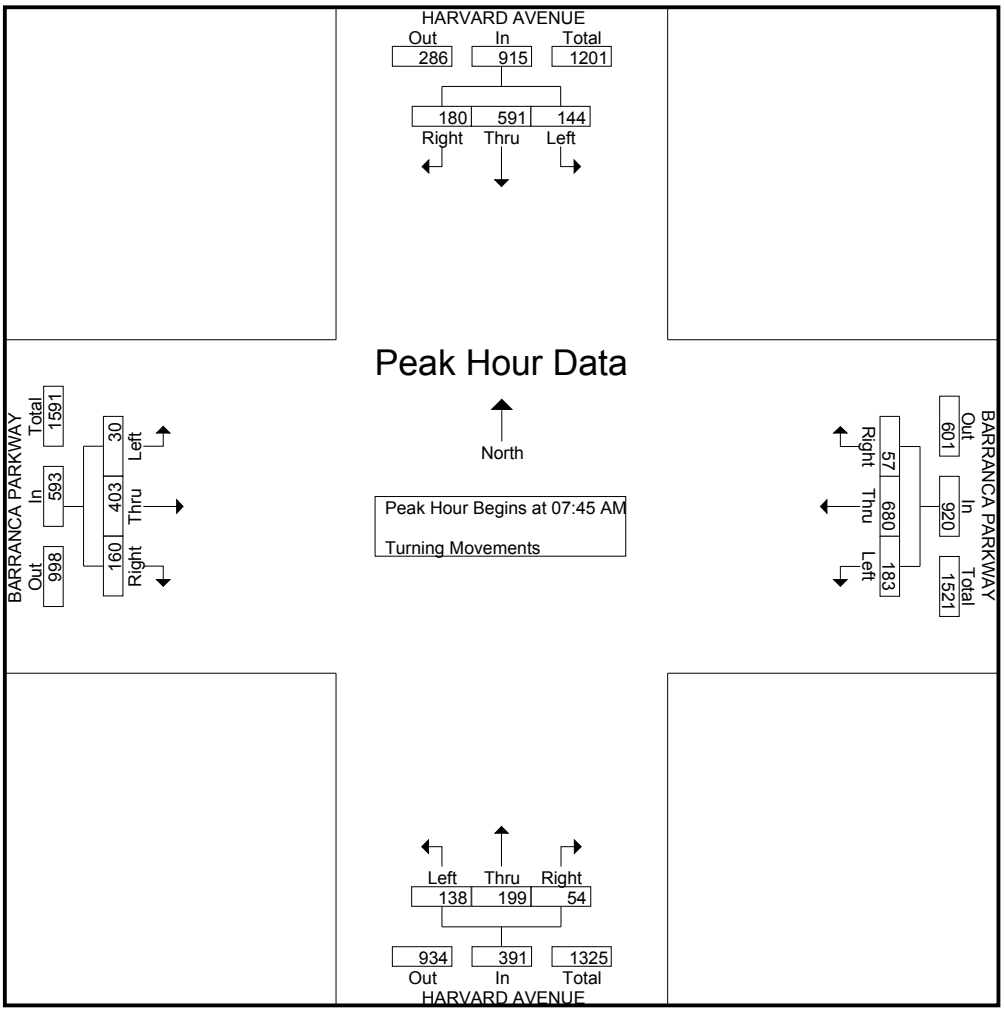
City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: BARRANCA PARKWAY

File Name : H1405100
Site Code : 00005701
Start Date : 6/11/2014
Page No : 2

	HARVARD AVENUE Southbound				BARRANCA PARKWAY Westbound				HARVARD AVENUE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**74**	125	35	234	11	142	34	187	11	54	**41**	106	**51**	77	**13**	141	668
08:00 AM	37	**194**	**48**	**279**	**18**	170	37	225	11	53	39	103	42	**126**	4	**172**	**779**
08:15 AM	32	134	43	209	11	**195**	51	**257**	**17**	34	18	69	31	111	8	150	685
08:30 AM	37	138	18	193	17	173	**61**	251	15	**58**	40	**113**	36	89	5	130	687
Total Volume	180	591	144	915	57	680	183	920	54	199	138	391	160	403	30	593	2819
% App. Total	19.7	64.6	15.7		6.2	73.9	19.9		13.8	50.9	35.3		27	68	5.1		
PHF	.608	.762	.750	.820	.792	.872	.750	.895	.794	.858	.841	.865	.784	.800	.577	.862	.905

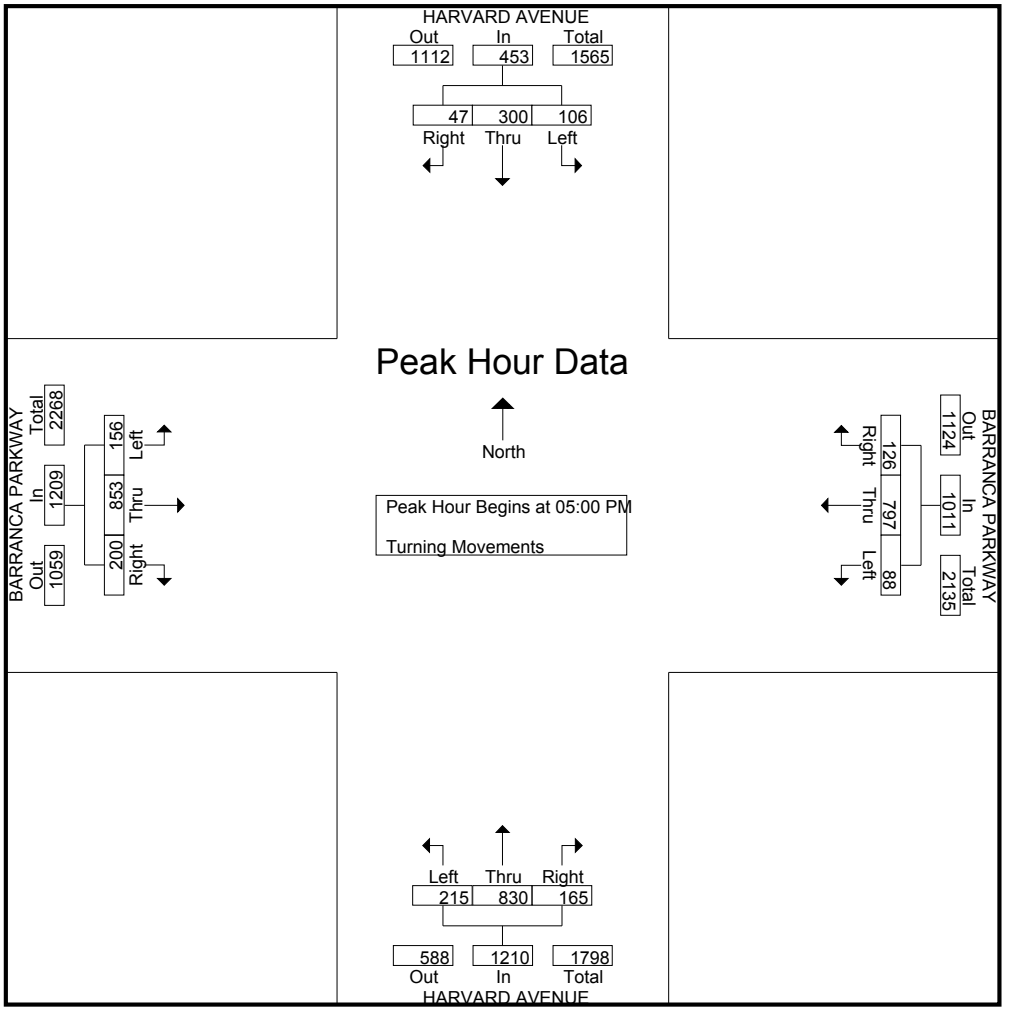


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: BARRANCA PARKWAY

File Name : H1405100
Site Code : 00005701
Start Date : 6/11/2014
Page No : 3

	HARVARD AVENUE Southbound				BARRANCA PARKWAY Westbound				HARVARD AVENUE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	7	58	20	85	33	**218**	21	**272**	34	166	33	233	37	195	25	257	847
05:15 PM	**23**	83	**32**	**138**	**45**	181	23	249	41	**231**	**67**	**339**	44	184	**69**	297	1023
05:30 PM	8	67	25	100	25	216	**30**	271	41	213	61	315	**62**	**258**	33	**353**	**1039**
05:45 PM	9	**92**	29	130	23	182	14	219	**49**	220	54	323	57	216	29	302	974
Total Volume	47	300	106	453	126	797	88	1011	165	830	215	1210	200	853	156	1209	3883
% App. Total	10.4	66.2	23.4		12.5	78.8	8.7		13.6	68.6	17.8		16.5	70.6	12.9		
PHF	.511	.815	.828	.821	.700	.914	.733	.929	.842	.898	.802	.892	.806	.827	.565	.856	.934



City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: BARRANCA PARKWAY

File Name : H1404063
Site Code : 228
Start Date : 5/20/2014
Page No : 1

Groups Printed- Turning Movements

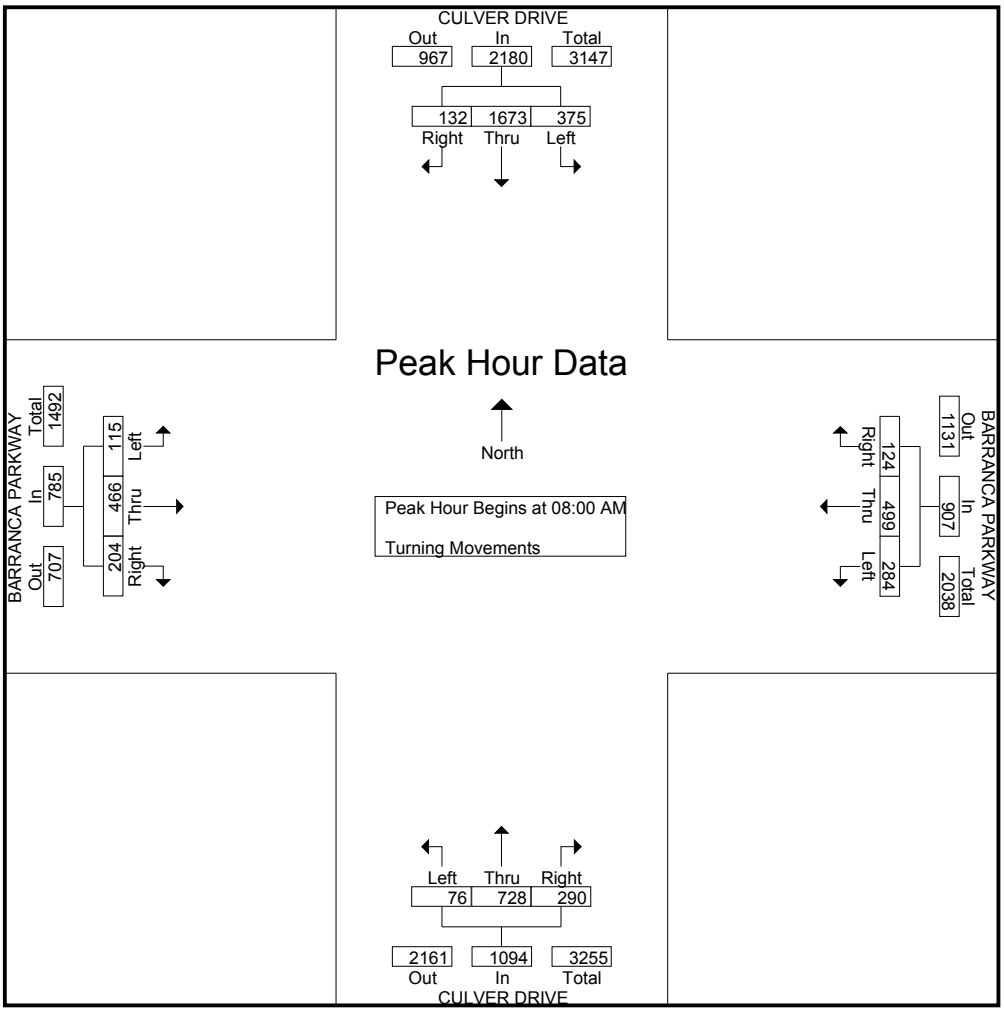
	CULVER DRIVE Southbound			BARRANCA PARKWAY Westbound			CULVER DRIVE Northbound			BARRANCA PARKWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	22	161	35	28	45	27	31	168	15	32	62	25	651
07:15 AM	29	304	44	15	65	43	33	211	10	37	66	20	877
07:30 AM	45	425	53	22	102	47	46	105	12	48	74	14	993
07:45 AM	26	403	68	20	112	68	54	161	14	57	105	18	1106
Total	122	1293	200	85	324	185	164	645	51	174	307	77	3627
08:00 AM	36	419	75	27	101	59	65	183	11	57	103	24	1160
08:15 AM	35	423	92	37	138	60	68	183	25	54	132	29	1276
08:30 AM	27	425	91	32	131	80	79	176	13	50	107	29	1240
08:45 AM	34	406	117	28	129	85	78	186	27	43	124	33	1290
Total	132	1673	375	124	499	284	290	728	76	204	466	115	4966
*** BREAK ***													
04:00 PM	29	213	51	61	124	44	66	213	31	50	134	55	1071
04:15 PM	35	217	57	65	129	61	89	235	22	58	165	61	1194
04:30 PM	31	240	64	68	151	64	96	230	46	57	179	67	1293
04:45 PM	23	265	47	81	156	68	94	309	40	49	191	64	1387
Total	118	935	219	275	560	237	345	987	139	214	669	247	4945
05:00 PM	25	254	53	79	176	60	70	387	44	49	169	74	1440
05:15 PM	27	279	83	81	180	65	73	354	39	54	229	91	1555
05:30 PM	23	259	48	90	176	77	87	408	40	40	235	94	1577
05:45 PM	33	284	64	74	153	66	94	397	23	52	204	89	1533
Total	108	1076	248	324	685	268	324	1546	146	195	837	348	6105
Grand Total	480	4977	1042	808	2068	974	1123	3906	412	787	2279	787	19643
Apprch %	7.4	76.6	16	21	53.7	25.3	20.6	71.8	7.6	20.4	59.1	20.4	
Total %	2.4	25.3	5.3	4.1	10.5	5	5.7	19.9	2.1	4	11.6	4	

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

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: BARRANCA PARKWAY

File Name : H1404063
Site Code : 228
Start Date : 5/20/2014
Page No : 2

	CULVER DRIVE Southbound				BARRANCA PARKWAY Westbound				CULVER DRIVE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**36**	419	75	530	27	101	59	187	65	183	11	259	**57**	103	24	184	1160
08:15 AM	35	423	92	550	**37**	**138**	60	235	68	183	25	276	54	**132**	29	**215**	1276
08:30 AM	27	**425**	91	543	32	131	80	**243**	**79**	176	13	268	50	107	29	186	1240
08:45 AM	34	406	**117**	**557**	28	129	**85**	242	78	**186**	**27**	**291**	43	124	**33**	200	**1290**
Total Volume	132	1673	375	2180	124	499	284	907	290	728	76	1094	204	466	115	785	4966
% App. Total	6.1	76.7	17.2		13.7	55	31.3		26.5	66.5	6.9		26	59.4	14.6		
PHF	.917	.984	.801	.978	.838	.904	.835	.933	.918	.978	.704	.940	.895	.883	.871	.913	.962

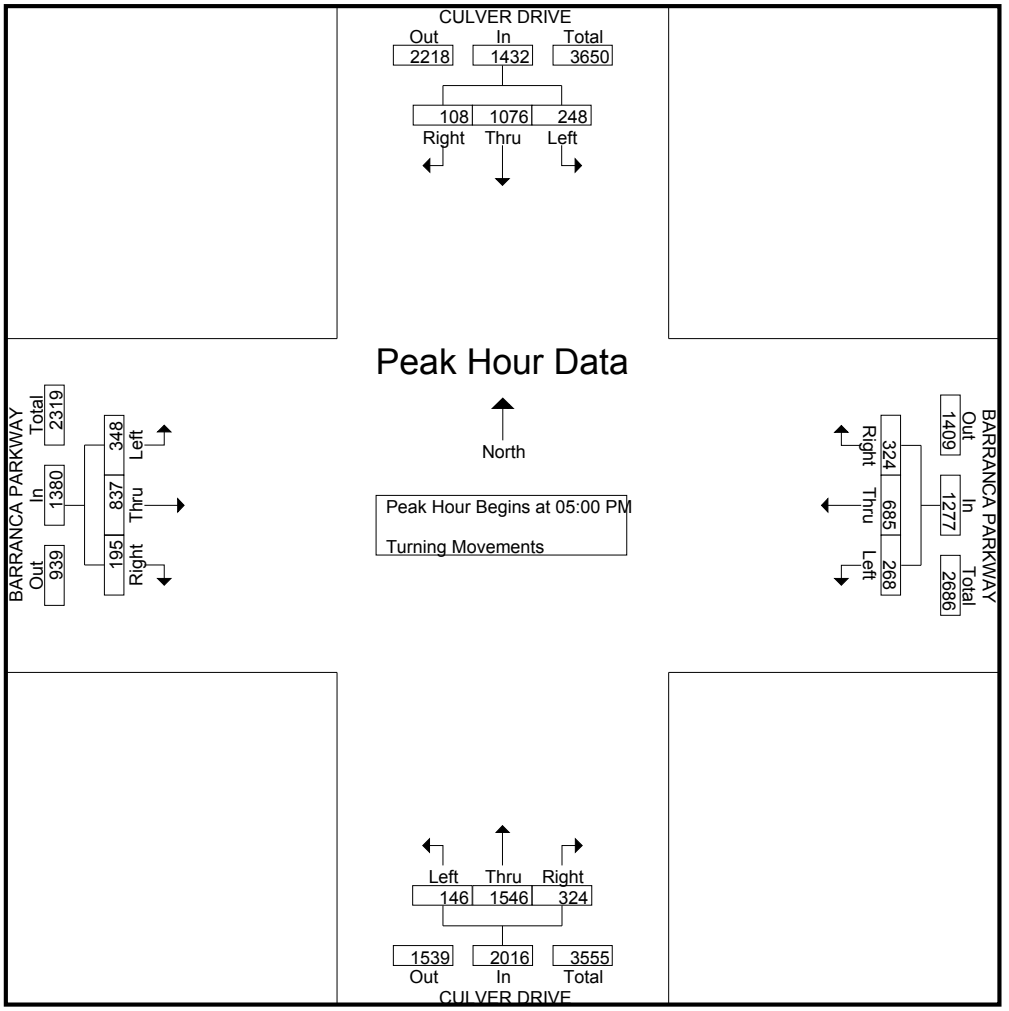


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: BARRANCA PARKWAY

File Name : H1404063
Site Code : 228
Start Date : 5/20/2014
Page No : 3

	CULVER DRIVE Southbound				BARRANCA PARKWAY Westbound				CULVER DRIVE Northbound				BARRANCA PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	25	254	53	332	79	176	60	315	70	387	**44**	501	49	169	74	292	1440
05:15 PM	27	279	**83**	**389**	81	**180**	65	326	73	354	39	466	**54**	229	91	**374**	1555
05:30 PM	23	259	48	330	**90**	176	**77**	**343**	87	**408**	40	**535**	40	**235**	**94**	369	**1577**
05:45 PM	**33**	**284**	64	381	74	153	66	293	**94**	397	23	514	52	204	89	345	1533
Total Volume	108	1076	248	1432	324	685	268	1277	324	1546	146	2016	195	837	348	1380	6105
% App. Total	7.5	75.1	17.3		25.4	53.6	21		16.1	76.7	7.2		14.1	60.7	25.2		
PHF	.818	.947	.747	.920	.900	.951	.870	.931	.862	.947	.830	.942	.903	.890	.926	.922	.968



City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405102
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

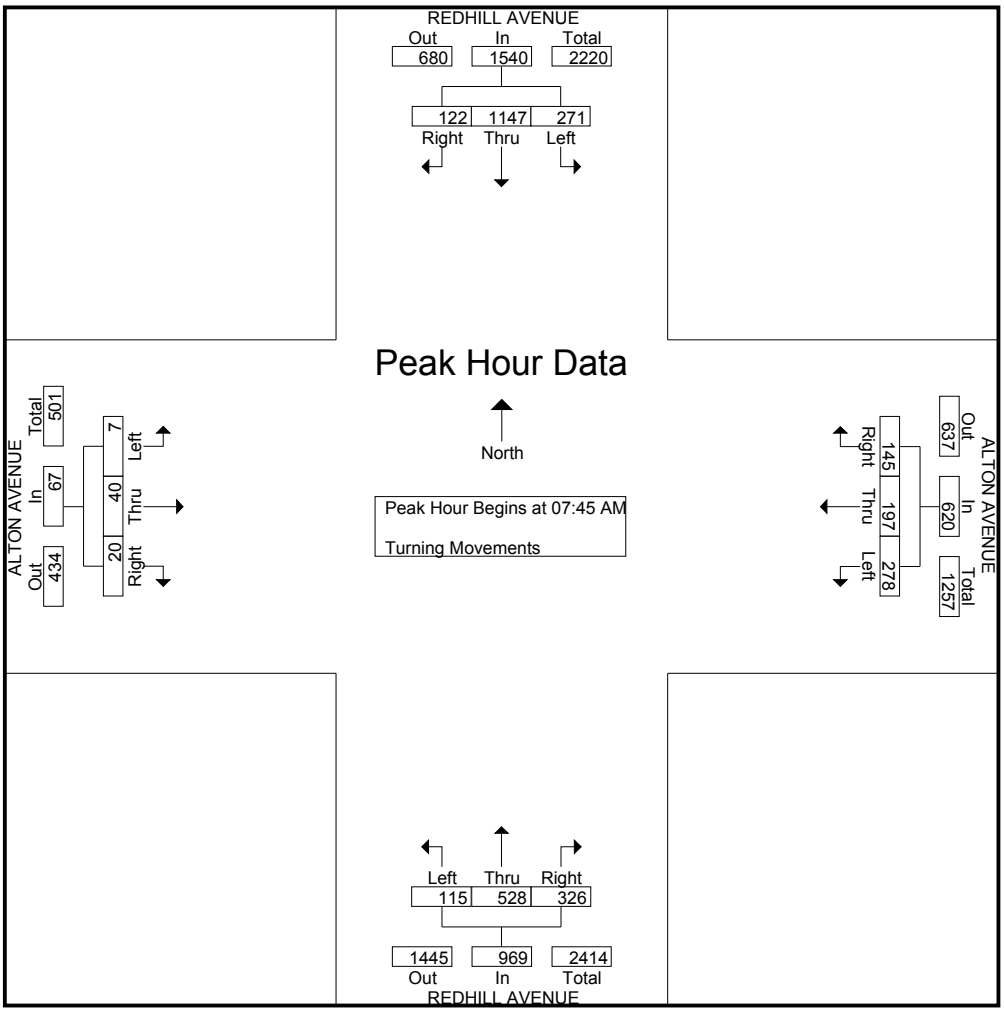
	REDHILL AVENUE Southbound			ALTON AVENUE Westbound			REDHILL AVENUE Northbound			ALTON AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	18	139	52	13	15	25	49	63	28	4	5	3	414
07:15 AM	18	191	57	22	28	31	63	79	24	0	6	2	521
07:30 AM	13	207	61	23	18	40	66	127	24	6	19	4	608
07:45 AM	20	278	64	39	39	63	86	172	38	1	9	0	809
Total	69	815	234	97	100	159	264	441	114	11	39	9	2352
08:00 AM	33	283	79	32	53	72	81	126	33	6	13	1	812
08:15 AM	38	307	68	37	56	81	87	126	29	4	9	2	844
08:30 AM	31	279	60	37	49	62	72	104	15	9	9	4	731
08:45 AM	23	248	56	26	34	83	73	135	19	6	13	2	718
Total	125	1117	263	132	192	298	313	491	96	25	44	9	3105
*** BREAK ***													
04:00 PM	5	151	28	73	15	78	45	460	20	36	30	13	954
04:15 PM	4	119	25	78	11	80	41	382	14	37	26	15	832
04:30 PM	2	122	31	111	25	123	48	413	9	32	58	12	986
04:45 PM	7	150	34	77	17	88	55	499	13	38	39	9	1026
Total	18	542	118	339	68	369	189	1754	56	143	153	49	3798
05:00 PM	1	168	47	140	35	126	58	504	11	47	68	29	1234
05:15 PM	1	162	45	122	28	132	63	462	13	33	77	19	1157
05:30 PM	3	161	33	121	22	123	51	518	11	32	66	20	1161
05:45 PM	1	170	33	78	31	101	67	487	8	20	43	10	1049
Total	6	661	158	461	116	482	239	1971	43	132	254	78	4601
Grand Total	218	3135	773	1029	476	1308	1005	4657	309	311	490	145	13856
Apprch %	5.3	76	18.7	36.6	16.9	46.5	16.8	78	5.2	32.9	51.8	15.3	
Total %	1.6	22.6	5.6	7.4	3.4	9.4	7.3	33.6	2.2	2.2	3.5	1	

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

City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405102
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

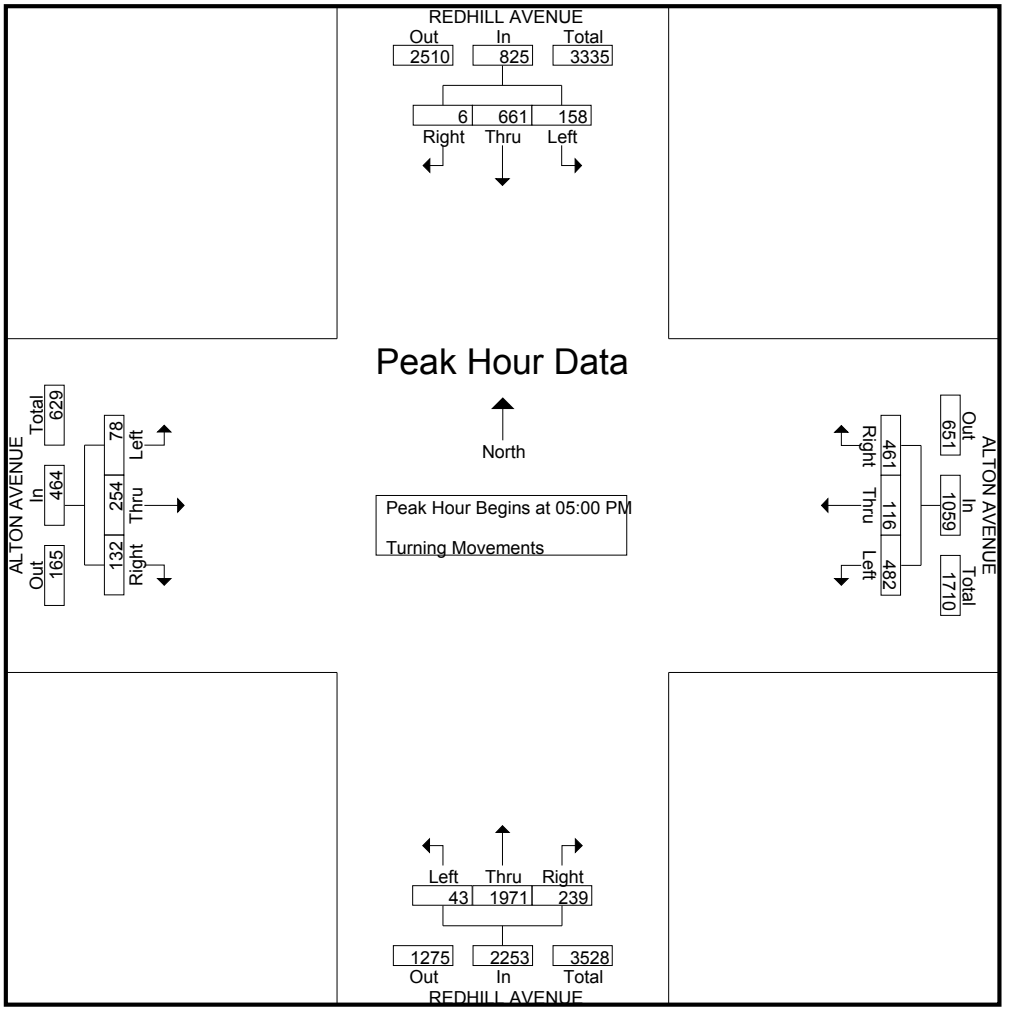
	REDHILL AVENUE Southbound				ALTON AVENUE Westbound				REDHILL AVENUE Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	20	278	64	362	**39**	39	63	141	86	**172**	**38**	**296**	1	9	0	10	809
08:00 AM	33	283	**79**	395	32	53	72	157	81	126	33	240	6	**13**	1	20	812
08:15 AM	**38**	**307**	68	**413**	37	**56**	**81**	**174**	**87**	126	29	242	4	9	2	15	**844**
08:30 AM	31	279	60	370	37	49	62	148	72	104	15	191	**9**	9	**4**	**22**	731
Total Volume	122	1147	271	1540	145	197	278	620	326	528	115	969	20	40	7	67	3196
% App. Total	7.9	74.5	17.6		23.4	31.8	44.8		33.6	54.5	11.9		29.9	59.7	10.4		
PHF	.803	.934	.858	.932	.929	.879	.858	.891	.937	.767	.757	.818	.556	.769	.438	.761	.947



City: TUSTIN
N-S Direction: REDHILL AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405102
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound				ALTON AVENUE Westbound				REDHILL AVENUE Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	168	**47**	**216**	**140**	**35**	126	**301**	58	504	11	573	**47**	68	**29**	**144**	**1234**
05:15 PM	1	162	45	208	122	28	**132**	282	63	462	**13**	538	33	**77**	19	129	1157
05:30 PM	**3**	161	33	197	121	22	123	266	51	**518**	11	**580**	32	66	20	118	1161
05:45 PM	1	**170**	33	204	78	31	101	210	**67**	487	8	562	20	43	10	73	1049
Total Volume	6	661	158	825	461	116	482	1059	239	1971	43	2253	132	254	78	464	4601
% App. Total	0.7	80.1	19.2		43.5	11	45.5		10.6	87.5	1.9		28.4	54.7	16.8		
PHF	.500	.972	.840	.955	.823	.829	.913	.880	.892	.951	.827	.971	.702	.825	.672	.806	.932



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

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405103
Site Code : 00005163
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

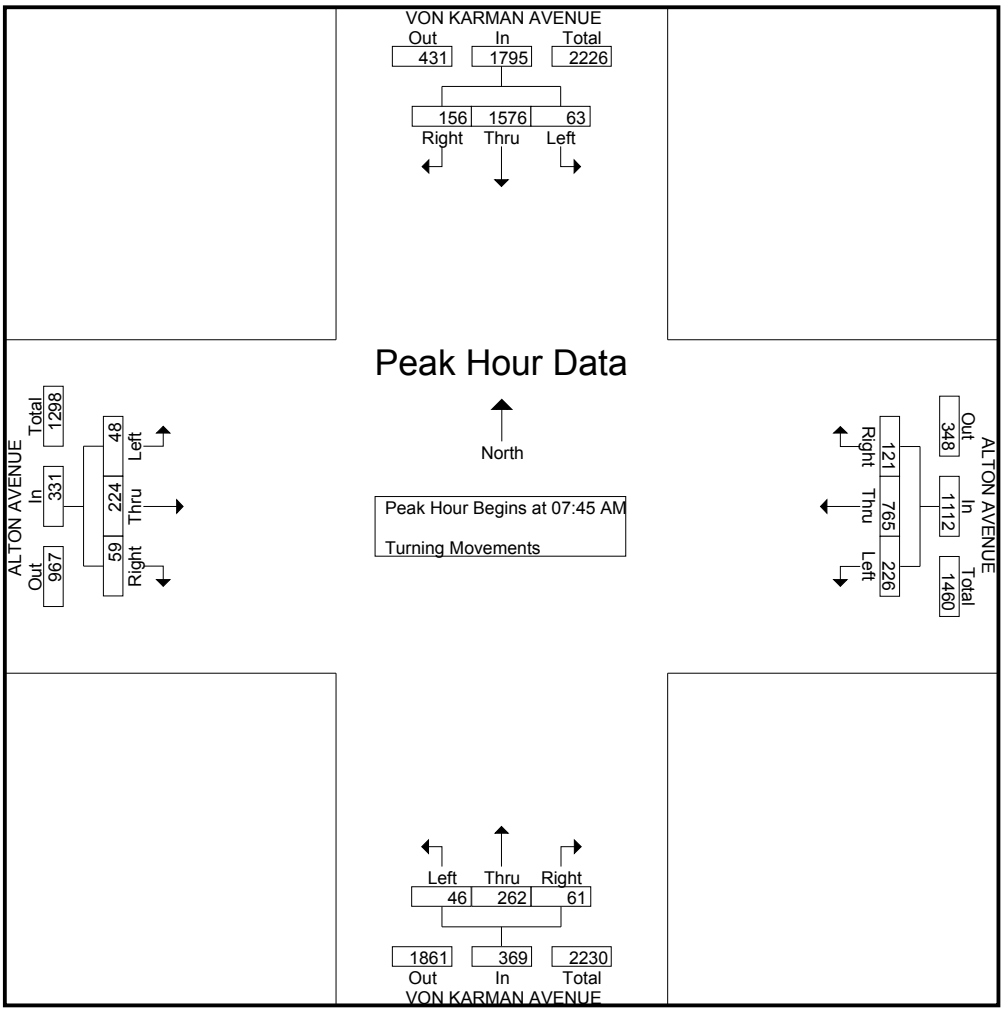
	VON KARMAN AVENUE Southbound			ALTON AVENUE Westbound			VON KARMAN AVENUE Northbound			ALTON AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	29	179	6	35	70	19	15	54	4	12	28	11	462
07:15 AM	38	214	16	31	89	22	6	46	3	16	43	6	530
07:30 AM	54	277	11	38	101	34	10	62	7	11	59	15	679
07:45 AM	28	320	9	35	187	62	10	67	12	24	68	7	829
Total	149	990	42	139	447	137	41	229	26	63	198	39	2500
08:00 AM	48	400	7	38	194	45	6	68	15	5	64	17	907
08:15 AM	36	476	26	23	199	75	13	42	6	12	48	11	967
08:30 AM	44	380	21	25	185	44	32	85	13	18	44	13	904
08:45 AM	43	351	9	31	149	38	14	49	9	6	60	7	766
Total	171	1607	63	117	727	202	65	244	43	41	216	48	3544
*** BREAK ***													
04:00 PM	25	107	37	27	98	19	23	221	17	9	119	26	728
04:15 PM	34	101	24	38	93	22	42	312	34	9	136	36	881
04:30 PM	26	110	35	34	137	17	30	268	17	13	155	27	869
04:45 PM	38	94	41	42	93	23	70	382	20	17	190	30	1040
Total	123	412	137	141	421	81	165	1183	88	48	600	119	3518
05:00 PM	43	129	40	20	137	24	64	295	22	16	209	45	1044
05:15 PM	66	121	57	25	176	22	83	313	29	17	261	58	1228
05:30 PM	46	110	31	12	208	30	77	263	13	18	306	52	1166
05:45 PM	35	115	39	21	124	24	56	323	27	15	195	57	1031
Total	190	475	167	78	645	100	280	1194	91	66	971	212	4469
Grand Total	633	3484	409	475	2240	520	551	2850	248	218	1985	418	14031
Apprch %	14	77	9	14.7	69.2	16.1	15.1	78.1	6.8	8.3	75.7	15.9	
Total %	4.5	24.8	2.9	3.4	16	3.7	3.9	20.3	1.8	1.6	14.1	3	

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

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405103
Site Code : 00005163
Start Date : 6/12/2014
Page No : 2

	VON KARMAN AVENUE Southbound				ALTON AVENUE Westbound				VON KARMAN AVENUE Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	28	320	9	357	35	187	62	284	10	67	12	89	**24**	**68**	7	**99**	829
08:00 AM	**48**	400	7	455	**38**	194	45	277	6	68	**15**	89	5	64	**17**	86	907
08:15 AM	36	**476**	**26**	**538**	23	**199**	**75**	**297**	13	42	6	61	12	48	11	71	**967**
08:30 AM	44	380	21	445	25	185	44	254	**32**	**85**	13	**130**	18	44	13	75	904
Total Volume	156	1576	63	1795	121	765	226	1112	61	262	46	369	59	224	48	331	3607
% App. Total	8.7	87.8	3.5		10.9	68.8	20.3		16.5	71	12.5		17.8	67.7	14.5		
PHF	.813	.828	.606	.834	.796	.961	.753	.936	.477	.771	.767	.710	.615	.824	.706	.836	.933

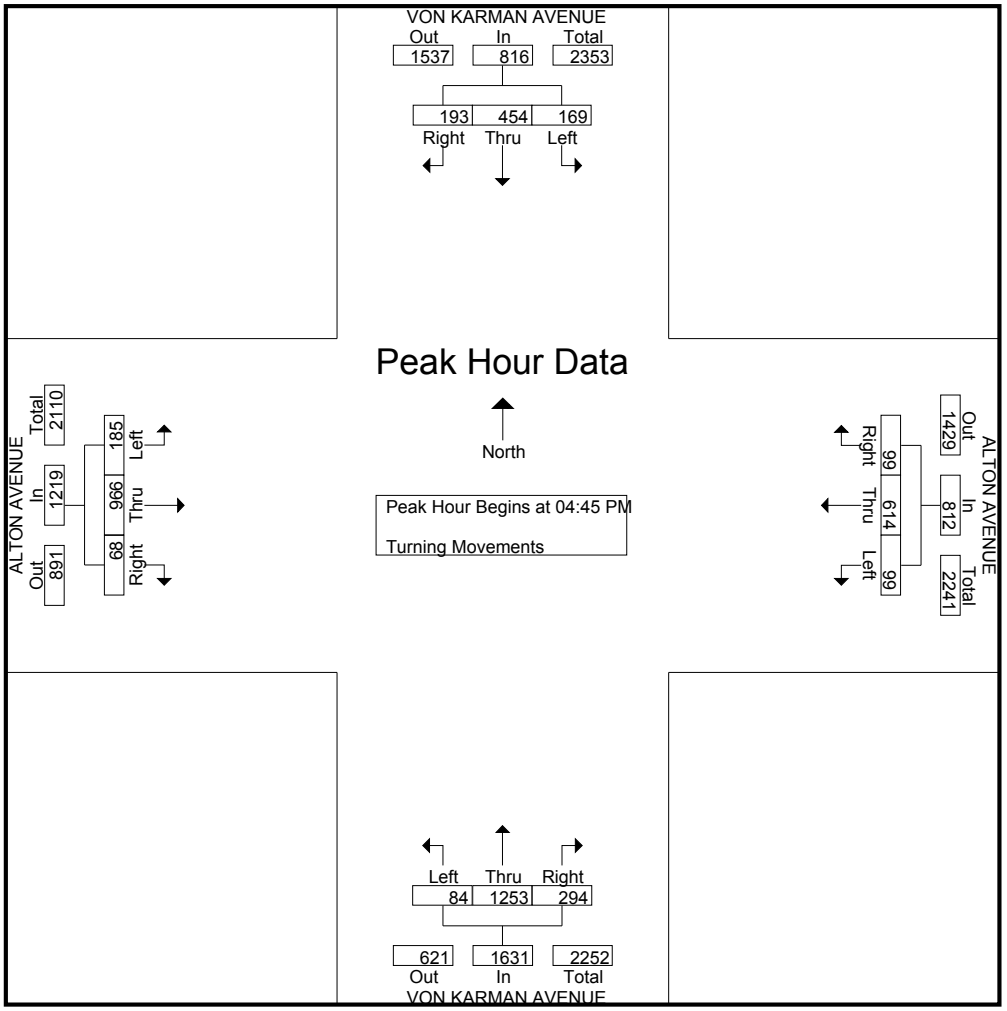


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405103
Site Code : 00005163
Start Date : 6/12/2014
Page No : 3

	VON KARMAN AVENUE Southbound				ALTON AVENUE Westbound				VON KARMAN AVENUE Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	38	94	41	173	**42**	93	23	158	70	**382**	20	**472**	17	190	30	237	1040
05:00 PM	43	**129**	40	212	20	137	24	181	64	295	22	381	16	209	45	270	1044
05:15 PM	**66**	121	**57**	**244**	25	176	22	223	**83**	313	**29**	425	17	261	**58**	336	**1228**
05:30 PM	46	110	31	187	12	**208**	**30**	**250**	77	263	13	353	**18**	**306**	52	**376**	1166
Total Volume	193	454	169	816	99	614	99	812	294	1253	84	1631	68	966	185	1219	4478
% App. Total	23.7	55.6	20.7		12.2	75.6	12.2		18	76.8	5.2		5.6	79.2	15.2		
PHF	.731	.880	.741	.836	.589	.738	.825	.812	.886	.820	.724	.864	.944	.789	.797	.811	.912



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

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: ALTON AVENUE

File Name : H1405095
Site Code : 00005724
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

	JAMBOREE ROAD Southbound			ALTON AVENUE Westbound			JAMBOREE ROAD Northbound			ALTON AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	27	456	30	12	55	20	26	137	45	13	25	11	857
07:15 AM	35	545	14	14	59	17	21	159	39	10	32	5	950
07:30 AM	35	639	38	15	93	44	34	191	76	15	33	7	1220
07:45 AM	63	634	59	21	228	50	34	207	46	18	46	6	1412
Total	160	2274	141	62	435	131	115	694	206	56	136	29	4439
08:00 AM	50	490	28	29	193	33	26	210	71	19	41	8	1198
08:15 AM	47	542	44	36	202	48	38	181	45	16	48	21	1268
08:30 AM	84	610	42	29	196	47	37	205	44	15	41	16	1366
08:45 AM	54	508	36	31	188	57	44	230	57	20	54	24	1303
Total	235	2150	150	125	779	185	145	826	217	70	184	69	5135
*** BREAK ***													
04:00 PM	39	226	24	50	92	36	40	580	43	54	122	51	1357
04:15 PM	34	246	45	39	84	40	28	641	54	57	130	70	1468
04:30 PM	31	301	50	68	94	48	31	680	54	73	127	62	1619
04:45 PM	28	282	41	30	119	54	38	725	47	60	181	105	1710
Total	132	1055	160	187	389	178	137	2626	198	244	560	288	6154
05:00 PM	28	334	40	78	119	56	46	679	43	47	198	104	1772
05:15 PM	54	452	53	82	137	57	46	797	53	67	216	116	2130
05:30 PM	32	316	39	59	132	49	61	699	65	48	263	130	1893
05:45 PM	52	383	48	45	123	77	66	745	58	73	221	106	1997
Total	166	1485	180	264	511	239	219	2920	219	235	898	456	7792
Grand Total	693	6964	631	638	2114	733	616	7066	840	605	1778	842	23520
Apprch %	8.4	84	7.6	18.3	60.7	21	7.2	82.9	9.9	18.8	55.1	26.1	
Total %	2.9	29.6	2.7	2.7	9	3.1	2.6	30	3.6	2.6	7.6	3.6	

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: ALTON AVENUE

File Name : H1405095
Site Code : 00005724
Start Date : 6/10/2014
Page No : 2

	JAMBOREE ROAD Southbound				ALTON AVENUE Westbound				JAMBOREE ROAD Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	63	**634**	**59**	**756**	21	**228**	**50**	**299**	34	207	46	287	18	46	6	70	**1412**
08:00 AM	50	490	28	568	29	193	33	255	26	**210**	**71**	**307**	**19**	41	8	68	1198
08:15 AM	47	542	44	633	**36**	202	48	286	**38**	181	45	264	16	**48**	**21**	**85**	1268
08:30 AM	**84**	610	42	736	29	196	47	272	37	205	44	286	15	41	16	72	1366
Total Volume	244	2276	173	2693	115	819	178	1112	135	803	206	1144	68	176	51	295	5244
% App. Total	9.1	84.5	6.4		10.3	73.7	16		11.8	70.2	18		23.1	59.7	17.3		
PHF	.726	.897	.733	.891	.799	.898	.890	.930	.888	.956	.725	.932	.895	.917	.607	.868	.928

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				08:00 AM				08:00 AM			
+0 mins.	63	**634**	**59**	**756**	21	**228**	**50**	**299**	26	210	**71**	307	19	41	8	68
+15 mins.	50	490	28	568	29	193	33	255	38	181	45	264	16	48	21	85
+30 mins.	47	542	44	633	**36**	202	48	286	37	205	44	286	15	41	16	72
+45 mins.	**84**	610	42	736	29	196	47	272	**44**	**230**	57	**331**	**20**	**54**	**24**	**98**
Total Volume	244	2276	173	2693	115	819	178	1112	145	826	217	1188	70	184	69	323
% App. Total	9.1	84.5	6.4		10.3	73.7	16		12.2	69.5	18.3		21.7	57	21.4	
PHF	.726	.897	.733	.891	.799	.898	.890	.930	.824	.898	.764	.897	.875	.852	.719	.824

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: ALTON AVENUE

File Name : H1405095
Site Code : 00005724
Start Date : 6/10/2014
Page No : 3

	JAMBOREE ROAD Southbound				ALTON AVENUE Westbound				JAMBOREE ROAD Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	28	334	40	402	78	119	56	253	46	679	43	768	47	198	104	349	1772
05:15 PM	**54**	**452**	**53**	**559**	**82**	**137**	57	**276**	46	**797**	53	**896**	67	216	116	399	**2130**
05:30 PM	32	316	39	387	59	132	49	240	61	699	**65**	825	48	**263**	**130**	**441**	1893
05:45 PM	52	383	48	483	45	123	**77**	245	**66**	745	58	869	**73**	221	106	400	1997
Total Volume	166	1485	180	1831	264	511	239	1014	219	2920	219	3358	235	898	456	1589	7792
% App. Total	9.1	81.1	9.8		26	50.4	23.6		6.5	87	6.5		14.8	56.5	28.7		
PHF	.769	.821	.849	.819	.805	.932	.776	.918	.830	.916	.842	.937	.805	.854	.877	.901	.915

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	28	334	40	402	78	119	56	253	46	679	43	768	47	198	104	349
+15 mins.	**54**	**452**	**53**	**559**	**82**	**137**	57	**276**	46	**797**	53	**896**	67	216	116	399
+30 mins.	32	316	39	387	59	132	49	240	61	699	**65**	825	48	**263**	**130**	**441**
+45 mins.	52	383	48	483	45	123	**77**	245	**66**	745	58	869	**73**	221	106	400
Total Volume	166	1485	180	1831	264	511	239	1014	219	2920	219	3358	235	898	456	1589
% App. Total	9.1	81.1	9.8		26	50.4	23.6		6.5	87	6.5		14.8	56.5	28.7	
PHF	.769	.821	.849	.819	.805	.932	.776	.918	.830	.916	.842	.937	.805	.854	.877	.901

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405101
Site Code :
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

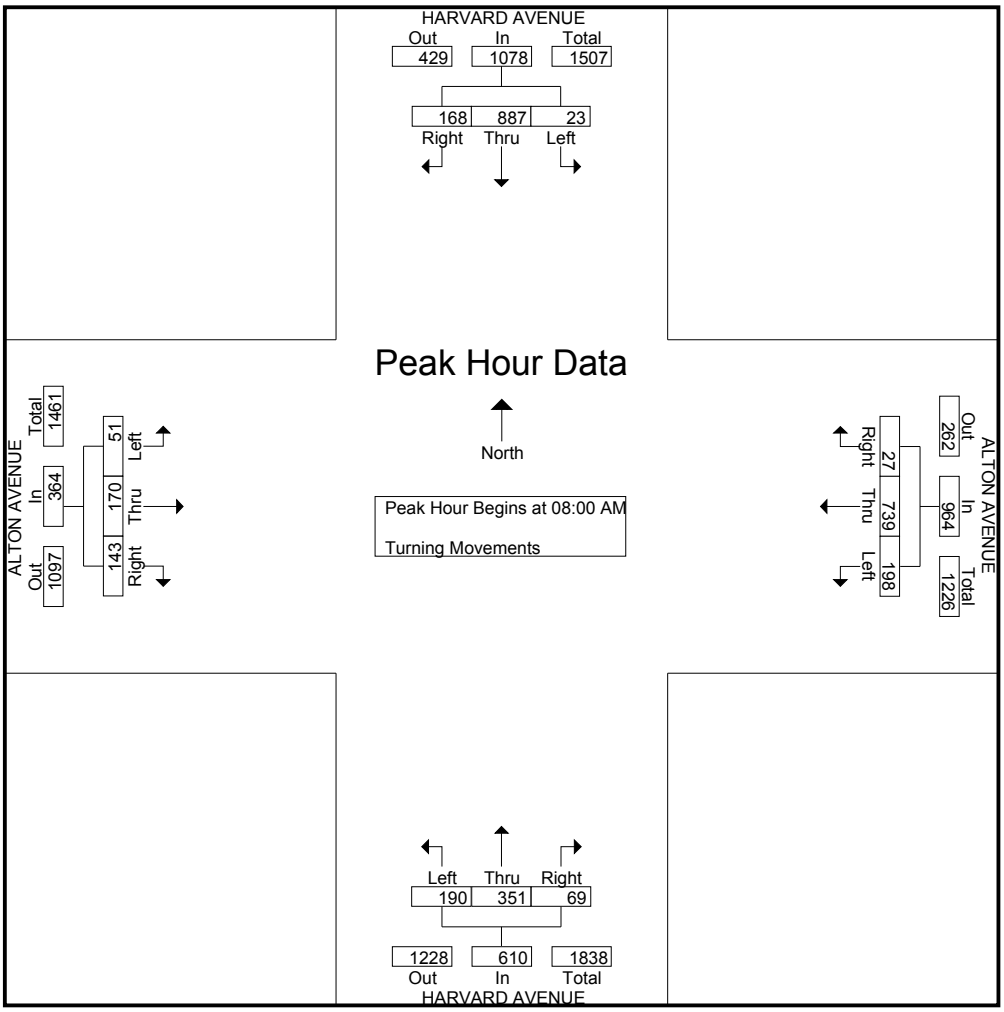
	HARVARD AVENUE Southbound			ALTON AVENUE Westbound			HARVARD AVENUE Northbound			ALTON AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	11	69	4	1	45	9	4	31	10	11	21	13	229
07:15 AM	19	86	8	8	63	15	5	39	24	17	22	5	311
07:30 AM	22	144	3	3	108	11	7	46	24	24	42	20	454
07:45 AM	31	180	8	4	131	36	12	87	38	29	43	15	614
Total	83	479	23	16	347	71	28	203	96	81	128	53	1608
08:00 AM	54	256	3	6	180	34	15	94	38	46	43	15	784
08:15 AM	38	222	6	9	194	54	19	102	55	37	36	16	788
08:30 AM	37	232	11	9	180	61	17	88	49	38	44	10	776
08:45 AM	39	177	3	3	185	49	18	67	48	22	47	10	668
Total	168	887	23	27	739	198	69	351	190	143	170	51	3016
*** BREAK ***													
04:00 PM	22	75	4	9	109	30	19	192	47	35	118	27	687
04:15 PM	15	83	15	11	122	21	26	253	37	54	147	33	817
04:30 PM	22	90	13	6	89	32	26	215	40	45	125	31	734
04:45 PM	15	96	15	8	117	24	25	248	41	56	187	34	866
Total	74	344	47	34	437	107	96	908	165	190	577	125	3104
05:00 PM	9	158	20	6	118	39	29	244	27	72	146	38	906
05:15 PM	14	118	13	9	138	15	58	323	37	96	267	44	1132
05:30 PM	4	132	15	10	134	40	67	312	48	87	264	50	1163
05:45 PM	8	155	20	22	159	30	59	363	41	104	180	60	1201
Total	35	563	68	47	549	124	213	1242	153	359	857	192	4402
Grand Total	360	2273	161	124	2072	500	406	2704	604	773	1732	421	12130
Apprch %	12.9	81.4	5.8	4.6	76.9	18.5	10.9	72.8	16.3	26.4	59.2	14.4	
Total %	3	18.7	1.3	1	17.1	4.1	3.3	22.3	5	6.4	14.3	3.5	

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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405101
Site Code :
Start Date : 6/12/2014
Page No : 2

	HARVARD AVENUE Southbound				ALTON AVENUE Westbound				HARVARD AVENUE Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**54**	**256**	3	**313**	6	180	34	220	15	94	38	147	**46**	43	15	**104**	784
08:15 AM	38	222	6	266	**9**	**194**	54	**257**	**19**	**102**	**55**	**176**	37	36	**16**	89	**788**
08:30 AM	37	232	**11**	280	9	180	**61**	250	17	88	49	154	38	44	10	92	776
08:45 AM	39	177	3	219	3	185	49	237	18	67	48	133	22	**47**	10	79	668
Total Volume	168	887	23	1078	27	739	198	964	69	351	190	610	143	170	51	364	3016
% App. Total	15.6	82.3	2.1		2.8	76.7	20.5		11.3	57.5	31.1		39.3	46.7	14		
PHF	.778	.866	.523	.861	.750	.952	.811	.938	.908	.860	.864	.866	.777	.904	.797	.875	.957

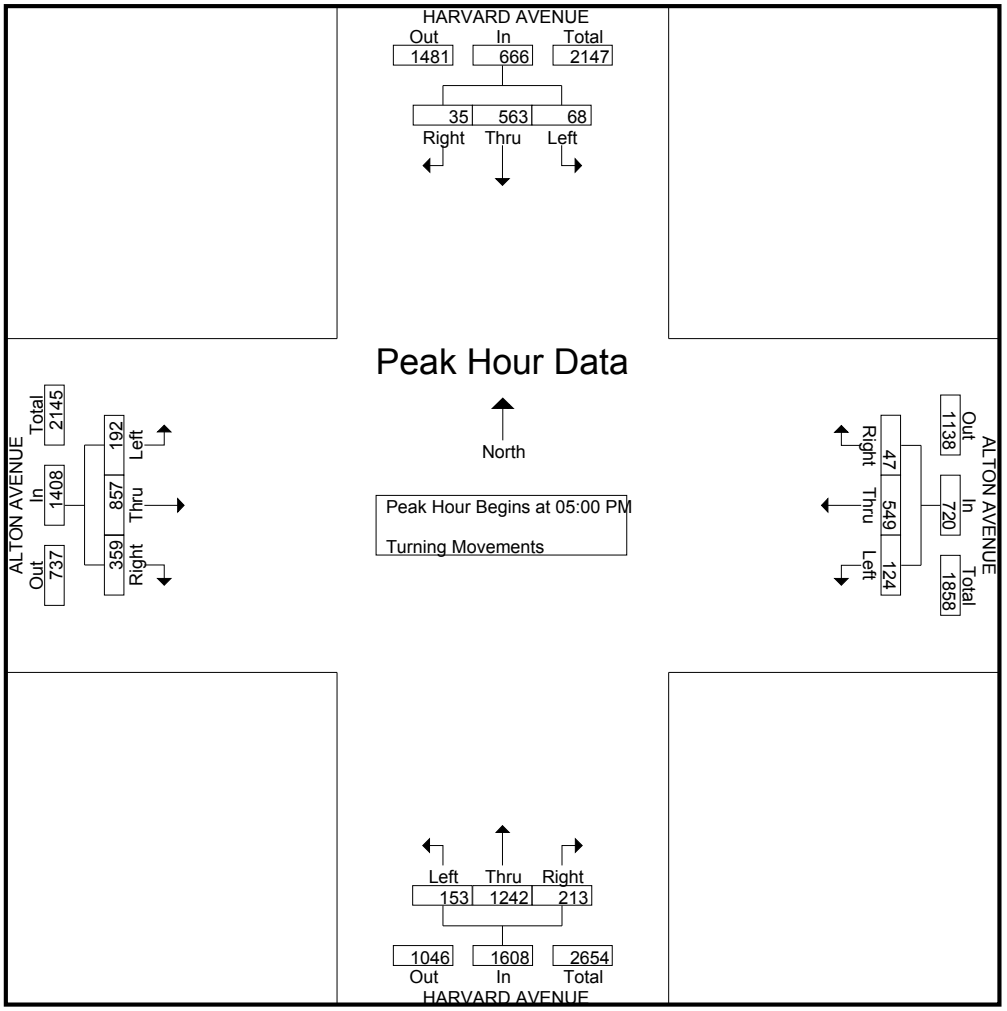


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: ALTON AVENUE

File Name : H1405101
Site Code :
Start Date : 6/12/2014
Page No : 3

	HARVARD AVENUE Southbound				ALTON AVENUE Westbound				HARVARD AVENUE Northbound				ALTON AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	9	**158**	**20**	**187**	6	118	39	163	29	244	27	300	72	146	38	256	906
05:15 PM	**14**	118	13	145	9	138	15	162	58	323	37	418	96	**267**	44	**407**	1132
05:30 PM	4	132	15	151	10	134	**40**	184	**67**	312	**48**	427	87	264	50	401	1163
05:45 PM	8	155	20	183	**22**	**159**	30	**211**	59	**363**	41	**463**	**104**	180	**60**	344	**1201**
Total Volume	35	563	68	666	47	549	124	720	213	1242	153	1608	359	857	192	1408	4402
% App. Total	5.3	84.5	10.2		6.5	76.2	17.2		13.2	77.2	9.5		25.5	60.9	13.6		
PHF	.625	.891	.850	.890	.534	.863	.775	.853	.795	.855	.797	.868	.863	.802	.800	.865	.916



City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: ALTON PARKWAY

File Name : H1404064
Site Code : 229
Start Date : 5/28/2014
Page No : 1

Groups Printed- Turning Movements

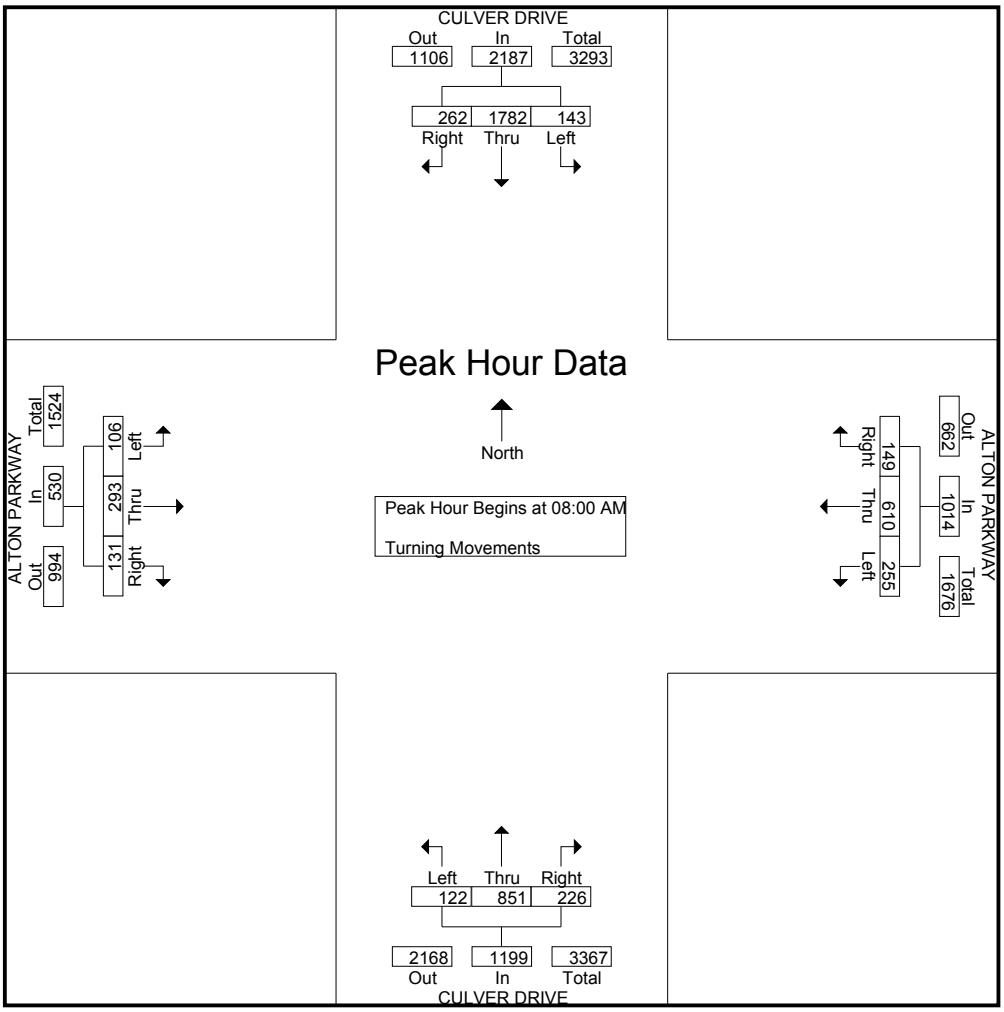
	CULVER DRIVE Southbound			ALTON PARKWAY Westbound			CULVER DRIVE Northbound			ALTON PARKWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	31	202	15	28	53	19	12	188	21	17	29	28	643
07:15 AM	44	288	15	27	76	17	19	170	31	34	55	24	800
07:30 AM	61	424	36	28	85	36	17	131	21	39	47	22	947
07:45 AM	60	427	51	36	131	27	51	187	14	43	86	25	1138
Total	196	1341	117	119	345	99	99	676	87	133	217	99	3528
08:00 AM	56	417	37	28	129	43	49	180	29	24	77	18	1087
08:15 AM	67	436	45	45	167	67	55	232	32	35	65	28	1274
08:30 AM	80	446	21	33	150	68	64	201	33	36	67	29	1228
08:45 AM	59	483	40	43	164	77	58	238	28	36	84	31	1341
Total	262	1782	143	149	610	255	226	851	122	131	293	106	4930
*** BREAK ***													
04:00 PM	63	226	40	57	144	56	40	245	58	71	114	41	1155
04:15 PM	72	256	40	58	149	47	47	251	53	59	140	53	1225
04:30 PM	69	250	40	55	130	43	61	240	64	62	154	50	1218
04:45 PM	65	230	42	50	103	48	66	253	50	49	170	75	1201
Total	269	962	162	220	526	194	214	989	225	241	578	219	4799
05:00 PM	58	260	42	66	137	52	82	359	52	53	177	62	1400
05:15 PM	59	250	49	62	166	61	86	378	48	61	200	76	1496
05:30 PM	82	238	78	63	166	66	94	364	58	59	204	93	1565
05:45 PM	80	262	77	55	177	42	88	367	43	64	234	91	1580
Total	279	1010	246	246	646	221	350	1468	201	237	815	322	6041
Grand Total	1006	5095	668	734	2127	769	889	3984	635	742	1903	746	19298
Apprch %	14.9	75.3	9.9	20.2	58.6	21.2	16.1	72.3	11.5	21.9	56.1	22	
Total %	5.2	26.4	3.5	3.8	11	4	4.6	20.6	3.3	3.8	9.9	3.9	

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

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: ALTON PARKWAY

File Name : H1404064
Site Code : 229
Start Date : 5/28/2014
Page No : 2

	CULVER DRIVE Southbound				ALTON PARKWAY Westbound				CULVER DRIVE Northbound				ALTON PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	56	417	37	510	28	129	43	200	49	180	29	258	24	77	18	119	1087
08:15 AM	67	436	**45**	548	**45**	**167**	67	279	55	232	32	319	35	65	28	128	1274
08:30 AM	**80**	446	21	547	33	150	68	251	**64**	201	**33**	298	**36**	67	29	132	1228
08:45 AM	59	**483**	40	**582**	43	164	**77**	**284**	58	**238**	28	**324**	36	**84**	**31**	**151**	**1341**
Total Volume	262	1782	143	2187	149	610	255	1014	226	851	122	1199	131	293	106	530	4930
% App. Total	12	81.5	6.5		14.7	60.2	25.1		18.8	71	10.2		24.7	55.3	20		
PHF	.819	.922	.794	.939	.828	.913	.828	.893	.883	.894	.924	.925	.910	.872	.855	.877	.919

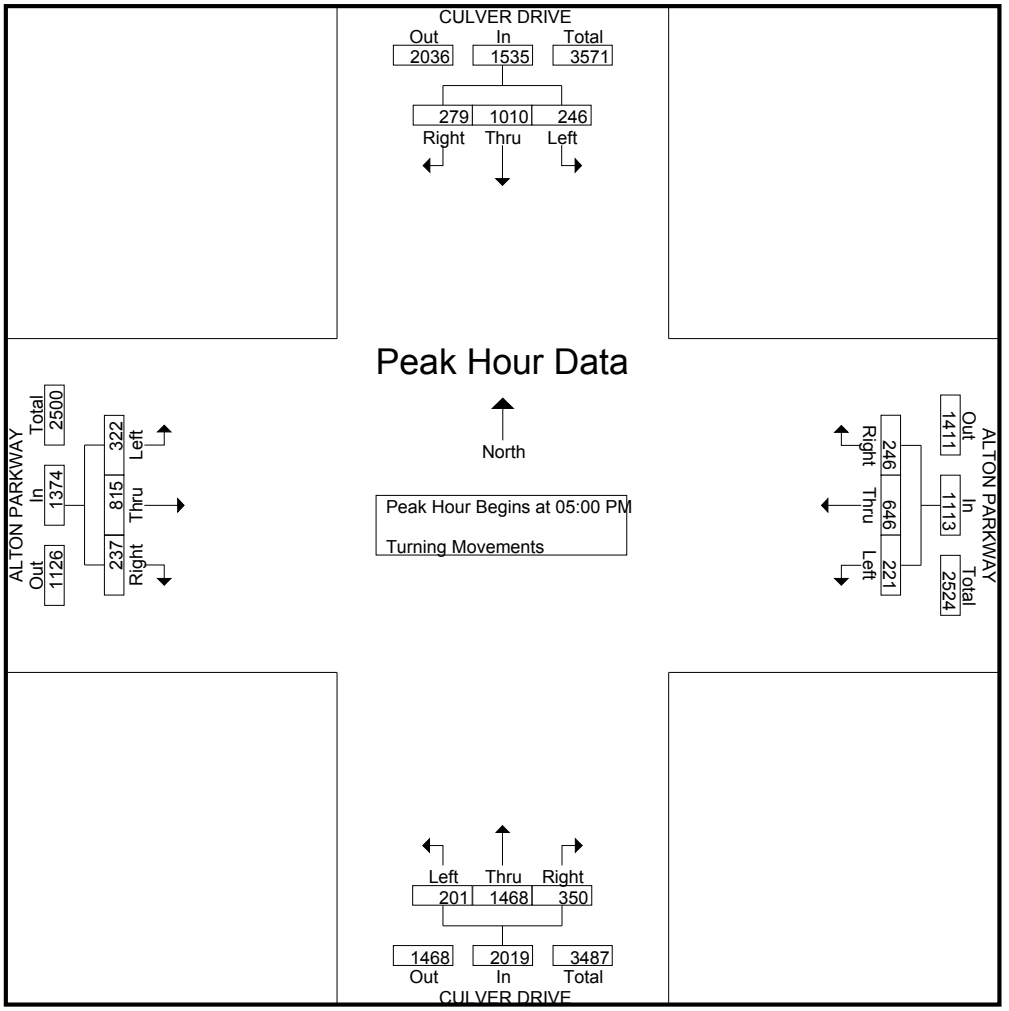


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: ALTON PARKWAY

File Name : H1404064
Site Code : 229
Start Date : 5/28/2014
Page No : 3

	CULVER DRIVE Southbound				ALTON PARKWAY Westbound				CULVER DRIVE Northbound				ALTON PARKWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	58	260	42	360	**66**	137	52	255	82	359	52	493	53	177	62	292	1400
05:15 PM	59	250	49	358	62	166	61	289	86	**378**	48	512	61	200	76	337	1496
05:30 PM	**82**	238	**78**	398	63	166	**66**	**295**	**94**	364	**58**	**516**	59	204	**93**	356	1565
05:45 PM	80	**262**	77	**419**	55	**177**	42	274	88	367	43	498	**64**	**234**	91	**389**	**1580**
Total Volume	279	1010	246	1535	246	646	221	1113	350	1468	201	2019	237	815	322	1374	6041
% App. Total	18.2	65.8	16		22.1	58	19.9		17.3	72.7	10		17.2	59.3	23.4		
PHF	.851	.964	.788	.916	.932	.912	.837	.943	.931	.971	.866	.978	.926	.871	.866	.883	.956



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

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MC GAW AVENUE

File Name : H1405108
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

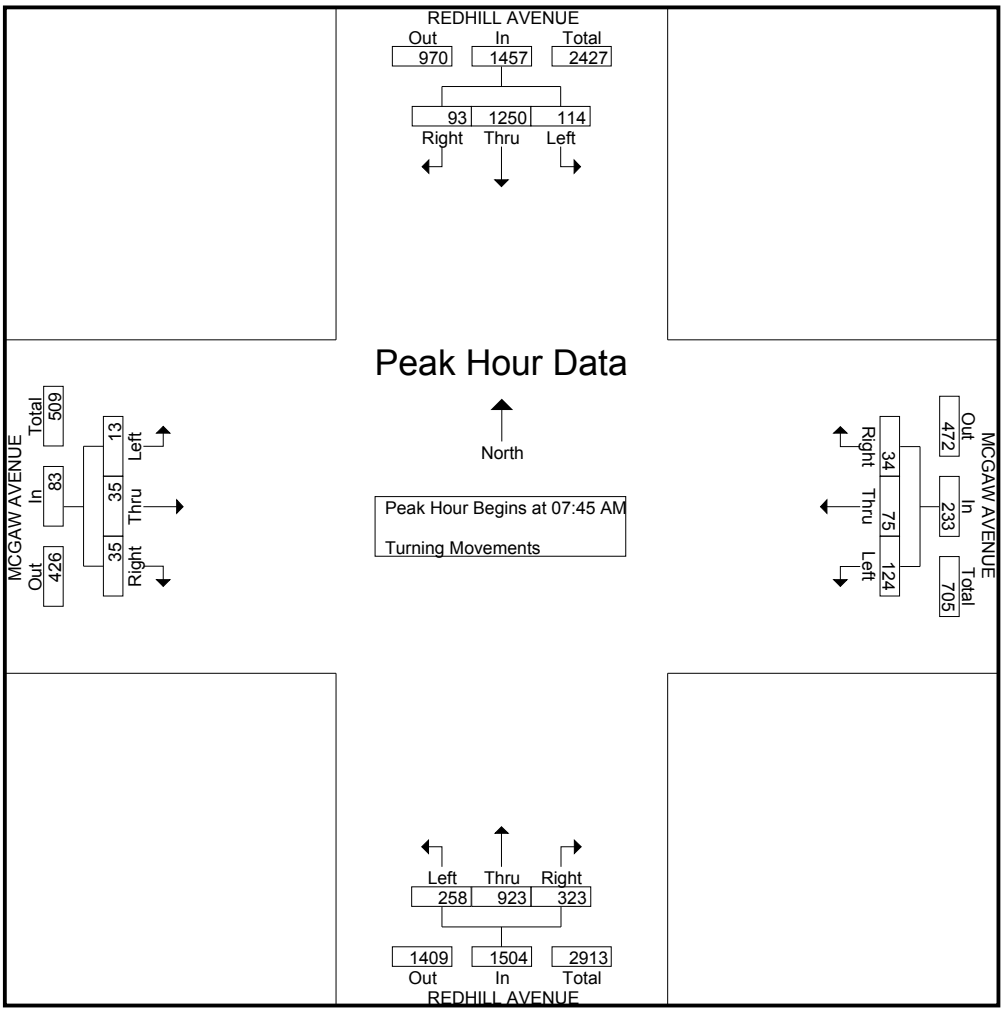
	REDHILL AVENUE Southbound			MCGAW AVENUE Westbound			REDHILL AVENUE Northbound			MCGAW AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	11	146	23	2	6	20	85	148	29	8	8	1	487
07:15 AM	14	185	27	3	14	24	61	156	50	5	11	0	550
07:30 AM	18	220	25	13	12	41	80	218	43	3	8	2	683
07:45 AM	16	287	37	11	15	20	81	289	70	11	6	1	844
Total	59	838	112	29	47	105	307	811	192	27	33	4	2564
08:00 AM	22	287	26	7	23	35	104	226	80	9	10	7	836
08:15 AM	32	348	23	6	16	31	76	227	58	5	6	1	829
08:30 AM	23	328	28	10	21	38	62	181	50	10	13	4	768
08:45 AM	36	271	31	9	12	32	63	220	38	3	7	3	725
Total	113	1234	108	32	72	136	305	854	226	27	36	15	3158
*** BREAK ***													
04:00 PM	3	237	10	39	10	120	52	474	8	67	17	19	1056
04:15 PM	5	232	8	24	18	80	39	393	7	48	10	5	869
04:30 PM	2	270	4	49	26	107	73	472	15	68	23	17	1126
04:45 PM	2	278	9	42	17	92	75	481	8	54	19	17	1094
Total	12	1017	31	154	71	399	239	1820	38	237	69	58	4145
05:00 PM	6	307	6	61	46	124	97	469	15	79	21	24	1255
05:15 PM	1	306	13	34	20	95	118	495	7	69	44	17	1219
05:30 PM	4	301	5	51	24	79	133	484	9	58	23	10	1181
05:45 PM	2	254	11	28	14	81	134	525	7	51	15	11	1133
Total	13	1168	35	174	104	379	482	1973	38	257	103	62	4788
Grand Total	197	4257	286	389	294	1019	1333	5458	494	548	241	139	14655
Apprch %	4.2	89.8	6	22.9	17.3	59.9	18.3	74.9	6.8	59.1	26	15	
Total %	1.3	29	2	2.7	2	7	9.1	37.2	3.4	3.7	1.6	0.9	

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

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MC GAW AVENUE

File Name : H1405108
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	REDHILL AVENUE Southbound				MCGAW AVENUE Westbound				REDHILL AVENUE Northbound				MCGAW AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	16	287	**37**	340	**11**	15	20	46	81	**289**	70	**440**	**11**	6	1	18	**844**
08:00 AM	22	287	26	335	7	**23**	35	65	**104**	226	**80**	410	9	10	**7**	26	836
08:15 AM	**32**	**348**	23	**403**	6	16	31	53	76	227	58	361	5	6	1	12	829
08:30 AM	23	328	28	379	10	21	**38**	**69**	62	181	50	293	10	**13**	4	**27**	768
Total Volume	93	1250	114	1457	34	75	124	233	323	923	258	1504	35	35	13	83	3277
% App. Total	6.4	85.8	7.8		14.6	32.2	53.2		21.5	61.4	17.2		42.2	42.2	15.7		
PHF	.727	.898	.770	.904	.773	.815	.816	.844	.776	.798	.806	.855	.795	.673	.464	.769	.971

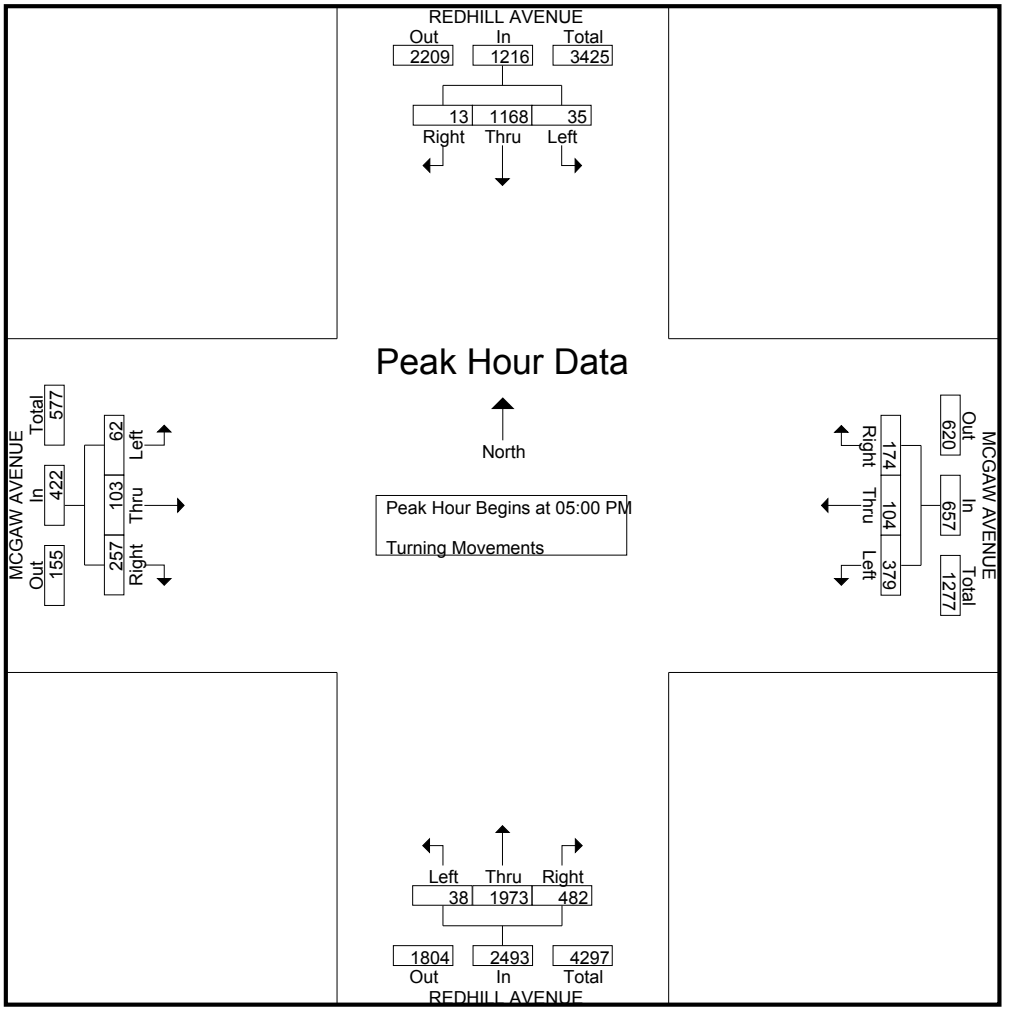


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MC GAW AVENUE

File Name : H1405108
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound				MCGAW AVENUE Westbound				REDHILL AVENUE Northbound				MCGAW AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**6**	**307**	6	319	**61**	**46**	**124**	**231**	97	469	**15**	581	**79**	21	**24**	124	**1255**
05:15 PM	1	306	**13**	**320**	34	20	95	149	118	495	7	620	69	**44**	17	**130**	1219
05:30 PM	4	301	5	310	51	24	79	154	133	484	9	626	58	23	10	91	1181
05:45 PM	2	254	11	267	28	14	81	123	**134**	**525**	7	**666**	51	15	11	77	1133
Total Volume	13	1168	35	1216	174	104	379	657	482	1973	38	2493	257	103	62	422	4788
% App. Total	1.1	96.1	2.9		26.5	15.8	57.7		19.3	79.1	1.5		60.9	24.4	14.7		
PHF	.542	.951	.673	.950	.713	.565	.764	.711	.899	.940	.633	.936	.813	.585	.646	.812	.954



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

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: MCGAW AVENUE

File Name : H1405112
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

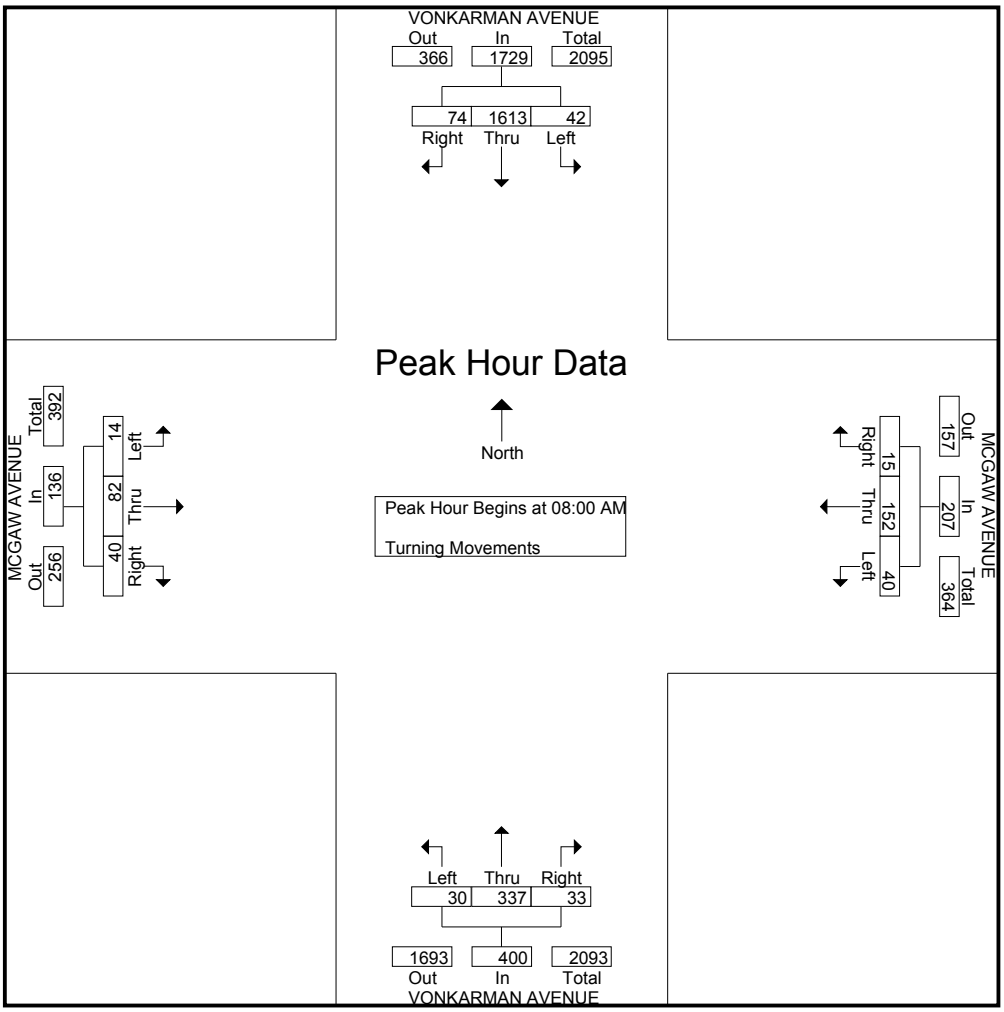
	VONKARMAN AVENUE Southbound			MCGAW AVENUE Westbound			VONKARMAN AVENUE Northbound			MCGAW AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	19	207	9	5	25	5	3	48	9	4	22	4	360
07:15 AM	22	258	9	1	43	6	3	64	5	8	22	0	441
07:30 AM	25	312	12	6	56	12	6	66	11	15	38	4	563
07:45 AM	24	381	17	9	38	9	9	101	7	5	29	5	634
Total	90	1158	47	21	162	32	21	279	32	32	111	13	1998
08:00 AM	16	360	7	4	40	13	8	88	7	8	18	4	573
08:15 AM	18	417	14	5	44	11	7	76	3	13	30	2	640
08:30 AM	15	397	12	5	37	9	7	80	12	13	17	6	610
08:45 AM	25	439	9	1	31	7	11	93	8	6	17	2	649
Total	74	1613	42	15	152	40	33	337	30	40	82	14	2472
*** BREAK ***													
04:00 PM	11	106	1	22	37	5	15	279	15	14	66	20	591
04:15 PM	5	87	7	16	27	6	16	319	10	16	46	24	579
04:30 PM	14	93	5	31	56	9	28	339	13	10	90	23	711
04:45 PM	8	125	6	12	20	5	28	361	10	14	71	20	680
Total	38	411	19	81	140	25	87	1298	48	54	273	87	2561
05:00 PM	5	168	13	20	43	12	46	356	12	21	109	34	839
05:15 PM	12	137	11	18	25	8	53	333	14	17	152	44	824
05:30 PM	4	132	12	17	23	3	67	352	27	7	100	33	777
05:45 PM	7	128	12	21	37	6	55	315	22	7	93	38	741
Total	28	565	48	76	128	29	221	1356	75	52	454	149	3181
Grand Total	230	3747	156	193	582	126	362	3270	185	178	920	263	10212
Apprch %	5.6	90.7	3.8	21.4	64.6	14	9.5	85.7	4.8	13.1	67.6	19.3	
Total %	2.3	36.7	1.5	1.9	5.7	1.2	3.5	32	1.8	1.7	9	2.6	

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

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: MCGAW AVENUE

File Name : H1405112
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	VONKARMAN AVENUE Southbound				MCGAW AVENUE Westbound				VONKARMAN AVENUE Northbound				MCGAW AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	16	360	7	383	4	40	**13**	57	8	88	7	103	8	18	4	30	573
08:15 AM	18	417	**14**	449	**5**	**44**	11	**60**	7	76	3	86	**13**	**30**	2	**45**	640
08:30 AM	15	397	12	424	5	37	9	51	7	80	**12**	99	13	17	**6**	36	610
08:45 AM	**25**	**439**	9	**473**	1	31	7	39	**11**	**93**	8	**112**	6	17	2	25	**649**
Total Volume	74	1613	42	1729	15	152	40	207	33	337	30	400	40	82	14	136	2472
% App. Total	4.3	93.3	2.4		7.2	73.4	19.3		8.2	84.2	7.5		29.4	60.3	10.3		
PHF	.740	.919	.750	.914	.750	.864	.769	.863	.750	.906	.625	.893	.769	.683	.583	.756	.952

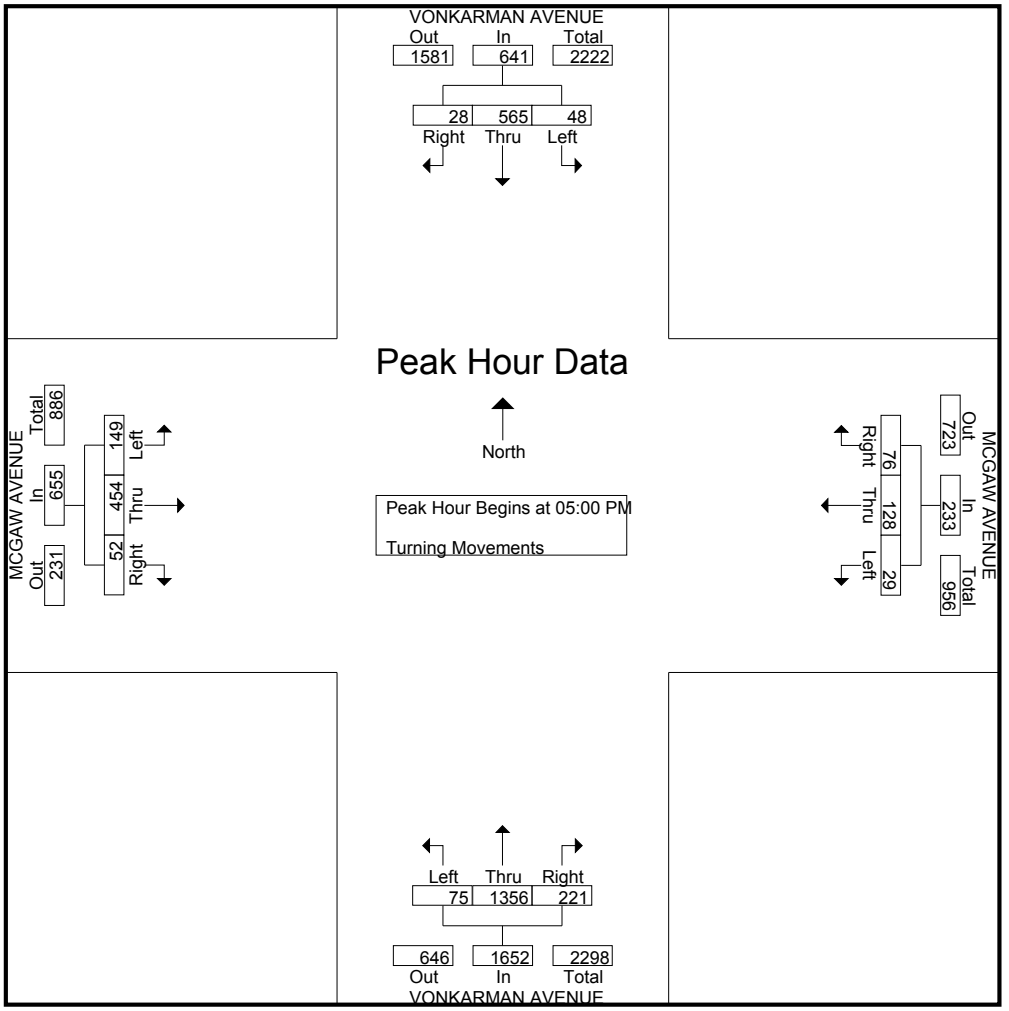


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: MCGAW AVENUE

File Name : H1405112
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	VONKARMAN AVENUE Southbound				MCGAW AVENUE Westbound				VONKARMAN AVENUE Northbound				MCGAW AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	5	**168**	**13**	**186**	20	**43**	**12**	**75**	46	**356**	12	414	**21**	109	34	164	**839**
05:15 PM	**12**	137	11	160	18	25	8	51	53	333	14	400	17	**152**	**44**	**213**	824
05:30 PM	4	132	12	148	17	23	3	43	**67**	352	**27**	**446**	7	100	33	140	777
05:45 PM	7	128	12	147	**21**	37	6	64	55	315	22	392	7	93	38	138	741
Total Volume	28	565	48	641	76	128	29	233	221	1356	75	1652	52	454	149	655	3181
% App. Total	4.4	88.1	7.5		32.6	54.9	12.4		13.4	82.1	4.5		7.9	69.3	22.7		
PHF	.583	.841	.923	.862	.905	.744	.604	.777	.825	.952	.694	.926	.619	.747	.847	.769	.948



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

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: MCGAW AVENUE

File Name : H1405104
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

	JAMBOREE ROAD Southbound			MCGAW AVENUE Westbound			JAMBOREE ROAD Northbound			MCGAW AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	28	515	7	5	1	5	13	217	41	7	3	4	846
07:15 AM	43	643	0	2	2	4	17	236	36	8	5	2	998
07:30 AM	46	664	3	6	10	7	6	240	37	11	9	4	1043
07:45 AM	37	478	3	4	7	3	18	295	34	8	7	5	899
Total	154	2300	13	17	20	19	54	988	148	34	24	15	3786
08:00 AM	18	298	2	6	10	2	10	298	40	15	15	4	718
08:15 AM	32	689	2	1	9	8	11	292	27	15	5	5	1096
08:30 AM	34	801	3	3	5	6	1	268	36	9	1	2	1169
08:45 AM	32	697	7	2	2	7	14	346	25	10	4	3	1149
Total	116	2485	14	12	26	23	36	1204	128	49	25	14	4132
*** BREAK ***													
04:00 PM	2	306	3	7	13	13	9	593	17	40	22	38	1063
04:15 PM	11	376	1	6	7	12	8	686	19	27	12	36	1201
04:30 PM	8	323	4	8	17	6	6	641	20	54	47	60	1194
04:45 PM	10	377	2	13	15	26	4	771	16	40	20	58	1352
Total	31	1382	10	34	52	57	27	2691	72	161	101	192	4810
05:00 PM	13	454	3	12	15	18	6	754	20	61	63	84	1503
05:15 PM	11	383	1	1	6	10	5	735	16	55	68	83	1374
05:30 PM	13	412	2	4	4	8	8	811	27	40	60	65	1454
05:45 PM	15	398	5	2	5	9	6	795	31	23	58	63	1410
Total	52	1647	11	19	30	45	25	3095	94	179	249	295	5741
Grand Total	353	7814	48	82	128	144	142	7978	442	423	399	516	18469
Apprch %	4.3	95.1	0.6	23.2	36.2	40.7	1.7	93.2	5.2	31.6	29.8	38.6	
Total %	1.9	42.3	0.3	0.4	0.7	0.8	0.8	43.2	2.4	2.3	2.2	2.8	

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: MCGAW AVENUE

File Name : H1405104
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	JAMBOREE ROAD Southbound				MCGAW AVENUE Westbound				JAMBOREE ROAD Northbound				MCGAW AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	18	298	2	318	**6**	**10**	2	**18**	10	298	**40**	348	**15**	**15**	4	**34**	718
08:15 AM	32	689	2	723	1	9	**8**	18	11	292	27	330	15	5	**5**	25	1096
08:30 AM	**34**	**801**	3	**838**	3	5	6	14	1	268	36	305	9	1	2	12	**1169**
08:45 AM	32	697	**7**	736	2	2	7	11	**14**	**346**	25	**385**	10	4	3	17	1149
Total Volume	116	2485	14	2615	12	26	23	61	36	1204	128	1368	49	25	14	88	4132
% App. Total	4.4	95	0.5		19.7	42.6	37.7		2.6	88	9.4		55.7	28.4	15.9		
PHF	.853	.776	.500	.780	.500	.650	.719	.847	.643	.870	.800	.888	.817	.417	.700	.647	.884

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:30 AM				08:00 AM				07:30 AM			
+0 mins.	18	298	2	318	**6**	**10**	7	**23**	10	298	**40**	348	11	9	4	24
+15 mins.	32	689	2	723	4	7	3	14	11	292	27	330	8	7	**5**	20
+30 mins.	**34**	**801**	3	**838**	6	10	2	18	1	268	36	305	**15**	**15**	4	**34**
+45 mins.	32	697	**7**	736	1	9	**8**	18	**14**	**346**	25	**385**	15	5	5	25
Total Volume	116	2485	14	2615	17	36	20	73	36	1204	128	1368	49	36	18	103
% App. Total	4.4	95	0.5		23.3	49.3	27.4		2.6	88	9.4		47.6	35	17.5	
PHF	.853	.776	.500	.780	.708	.900	.625	.793	.643	.870	.800	.888	.817	.600	.900	.757

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: MCGAW AVENUE

File Name : H1405104
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	JAMBOREE ROAD Southbound				MCGAW AVENUE Westbound				JAMBOREE ROAD Northbound				MCGAW AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	13	**454**	3	**470**	**12**	**15**	**18**	**45**	6	754	20	780	**61**	63	**84**	**208**	**1503**
05:15 PM	11	383	1	395	1	6	10	17	5	735	16	756	55	**68**	83	206	1374
05:30 PM	13	412	2	427	4	4	8	16	**8**	**811**	27	**846**	40	60	65	165	1454
05:45 PM	**15**	398	**5**	418	2	5	9	16	6	795	**31**	832	23	58	63	144	1410
Total Volume	52	1647	11	1710	19	30	45	94	25	3095	94	3214	179	249	295	723	5741
% App. Total	3	96.3	0.6		20.2	31.9	47.9		0.8	96.3	2.9		24.8	34.4	40.8		
PHF	.867	.907	.550	.910	.396	.500	.625	.522	.781	.954	.758	.950	.734	.915	.878	.869	.955

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:15 PM				05:00 PM				05:00 PM			
+0 mins.	13	**454**	3	**470**	6	7	12	25	6	754	20	780	**61**	63	**84**	**208**
+15 mins.	11	383	1	395	8	**17**	6	31	5	735	16	756	55	**68**	83	206
+30 mins.	13	412	2	427	**13**	15	**26**	**54**	**8**	**811**	27	**846**	40	60	65	165
+45 mins.	**15**	398	**5**	418	12	15	18	45	6	795	**31**	832	23	58	63	144
Total Volume	52	1647	11	1710	39	54	62	155	25	3095	94	3214	179	249	295	723
% App. Total	3	96.3	0.6		25.2	34.8	40		0.8	96.3	2.9		24.8	34.4	40.8	
PHF	.867	.907	.550	.910	.750	.794	.596	.718	.781	.954	.758	.950	.734	.915	.878	.869

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

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MACARTHUR BOULEVARD

File Name : H1405109
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

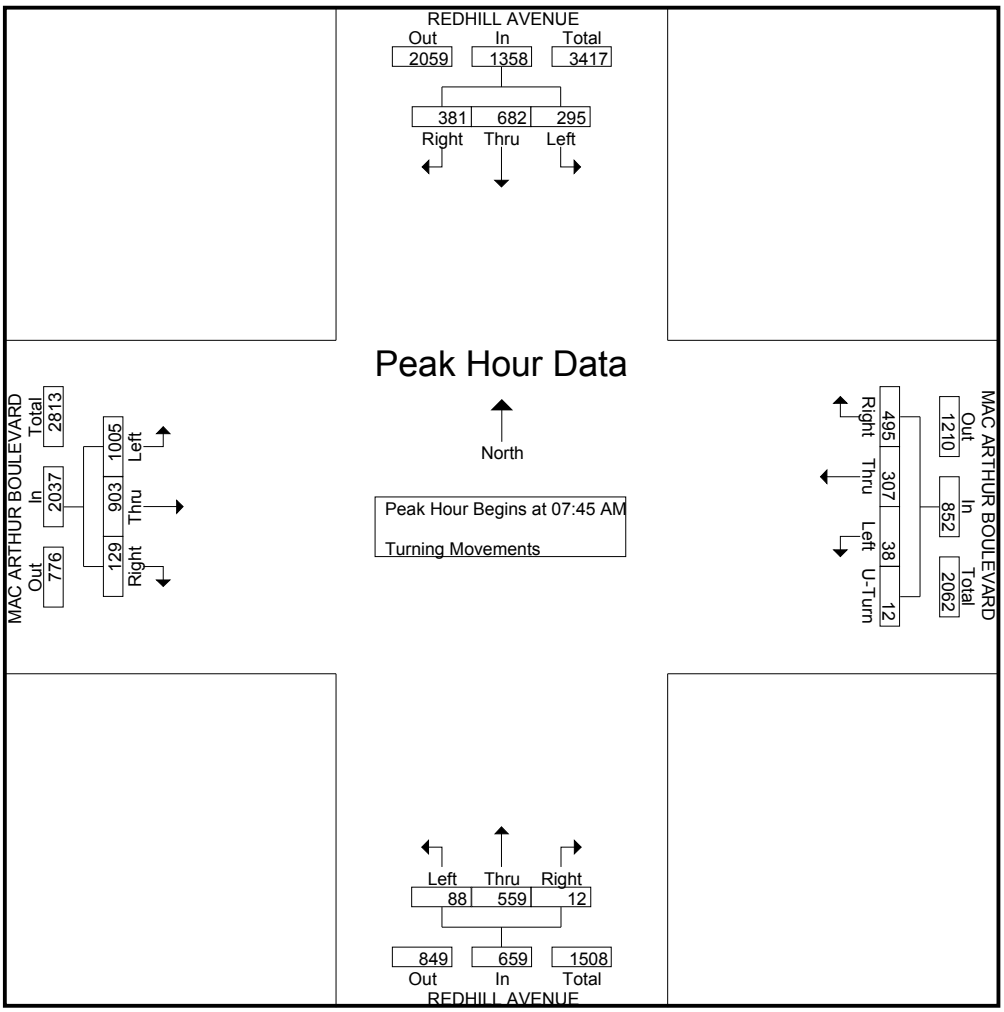
	REDHILL AVENUE Southbound			MAC ARTHUR BOULEVARD Westbound				REDHILL AVENUE Northbound			MAC ARTHUR BOULEVARD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	56	62	36	81	34	9	4	5	68	19	23	199	227	823
07:15 AM	67	108	37	110	54	5	0	3	93	13	23	169	239	921
07:30 AM	83	126	48	98	73	5	1	4	110	13	36	209	253	1059
07:45 AM	84	177	65	141	70	8	2	2	215	17	25	206	268	1280
Total	290	473	186	430	231	27	7	14	486	62	107	783	987	4083
08:00 AM	81	162	63	147	88	11	4	1	125	24	42	247	283	1278
08:15 AM	108	191	84	101	64	8	2	5	120	28	32	234	258	1235
08:30 AM	108	152	83	106	85	11	4	4	99	19	30	216	196	1113
08:45 AM	102	161	61	115	69	4	2	1	121	15	40	196	230	1117
Total	399	666	291	469	306	34	12	11	465	86	144	893	967	4743
*** BREAK ***														
04:00 PM	255	130	67	169	238	5	2	4	241	79	22	109	157	1478
04:15 PM	200	148	59	128	228	2	1	11	193	38	17	85	127	1237
04:30 PM	263	155	65	188	240	19	5	7	232	70	20	98	179	1541
04:45 PM	216	162	69	155	218	5	2	10	194	45	17	104	205	1402
Total	934	595	260	640	924	31	10	32	860	232	76	396	668	5658
05:00 PM	320	227	102	218	228	10	4	7	299	50	20	97	168	1750
05:15 PM	233	192	74	225	241	21	2	6	219	35	28	150	198	1624
05:30 PM	217	221	63	227	174	12	2	12	296	52	33	162	217	1688
05:45 PM	171	158	75	191	219	13	3	3	246	35	26	162	191	1493
Total	941	798	314	861	862	56	11	28	1060	172	107	571	774	6555
Grand Total	2564	2532	1051	2400	2323	148	40	85	2871	552	434	2643	3396	21039
Apprch %	41.7	41.2	17.1	48.9	47.3	3	0.8	2.4	81.8	15.7	6.7	40.8	52.5	
Total %	12.2	12	5	11.4	11	0.7	0.2	0.4	13.6	2.6	2.1	12.6	16.1	

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

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MACARTHUR BOULEVARD

File Name : H1405109
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	REDHILL AVENUE Southbound				MAC ARTHUR BOULEVARD Westbound					REDHILL AVENUE Northbound				MAC ARTHUR BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:45 AM																		
07:45 AM	84	177	65	326	141	70	8	2	221	2	**215**	17	**234**	25	206	268	499	**1280**
08:00 AM	81	162	63	306	**147**	**88**	**11**	**4**	**250**	1	125	24	150	**42**	**247**	**283**	**572**	1278
08:15 AM	**108**	**191**	**84**	**383**	101	64	8	2	175	**5**	120	**28**	153	32	234	258	524	1235
08:30 AM	108	152	83	343	106	85	11	4	206	4	99	19	122	30	216	196	442	1113
Total Volume	381	682	295	1358	495	307	38	12	852	12	559	88	659	129	903	1005	2037	4906
% App. Total	28.1	50.2	21.7		58.1	36	4.5	1.4		1.8	84.8	13.4		6.3	44.3	49.3		
PHF	.882	.893	.878	.886	.842	.872	.864	.750	.852	.600	.650	.786	.704	.768	.914	.888	.890	.958

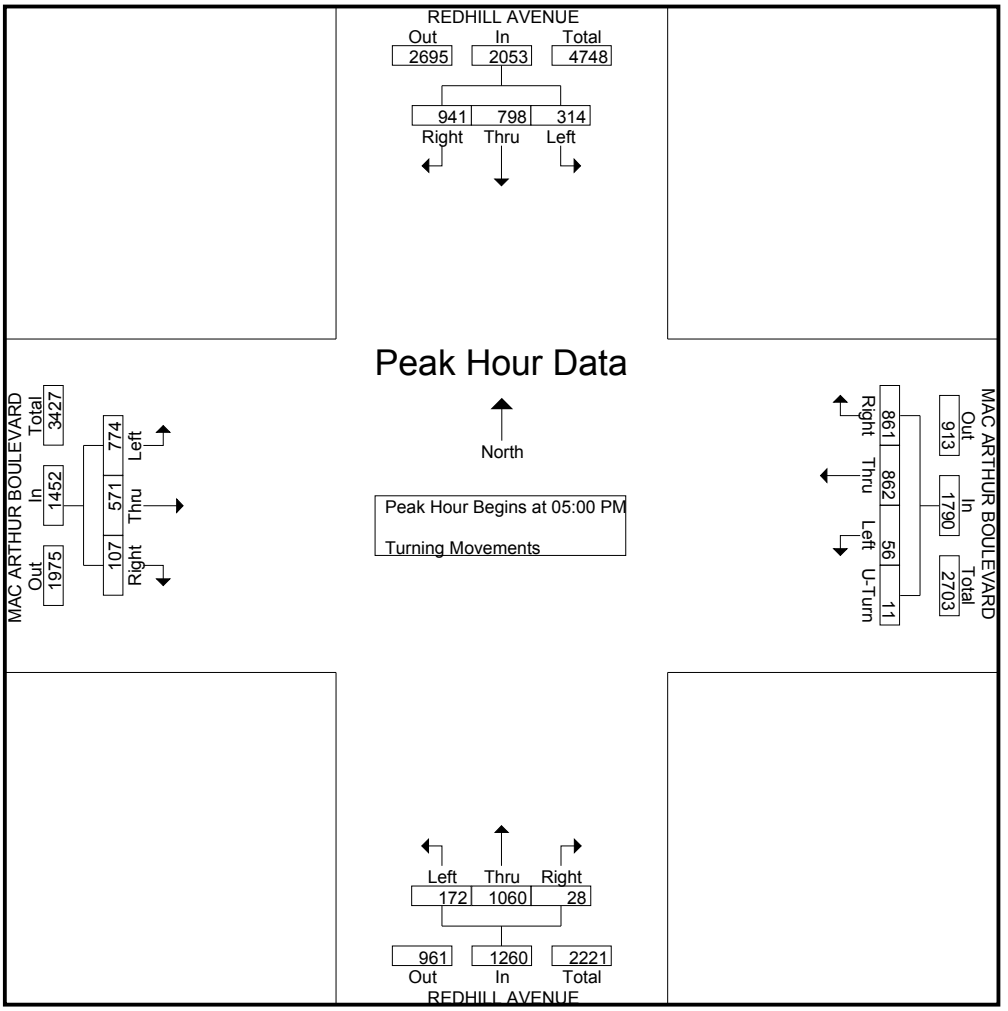


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MACARTHUR BOULEVARD

File Name : H1405109
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound				MAC ARTHUR BOULEVARD Westbound					REDHILL AVENUE Northbound				MAC ARTHUR BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	**320**	**227**	**102**	**649**	218	228	10	**4**	460	7	**299**	50	356	20	97	168	285	**1750**
05:15 PM	233	192	74	499	225	**241**	**21**	2	**489**	6	219	35	260	28	150	198	376	1624
05:30 PM	217	221	63	501	**227**	174	12	2	415	**12**	296	**52**	**360**	**33**	**162**	**217**	**412**	1688
05:45 PM	171	158	75	404	191	219	13	3	426	3	246	35	284	26	162	191	379	1493
Total Volume	941	798	314	2053	861	862	56	11	1790	28	1060	172	1260	107	571	774	1452	6555
% App. Total	45.8	38.9	15.3		48.1	48.2	3.1	0.6		2.2	84.1	13.7		7.4	39.3	53.3		
PHF	.735	.879	.770	.791	.948	.894	.667	.688	.915	.583	.886	.827	.875	.811	.881	.892	.881	.936



City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MAIN STREET

File Name : h1405110
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

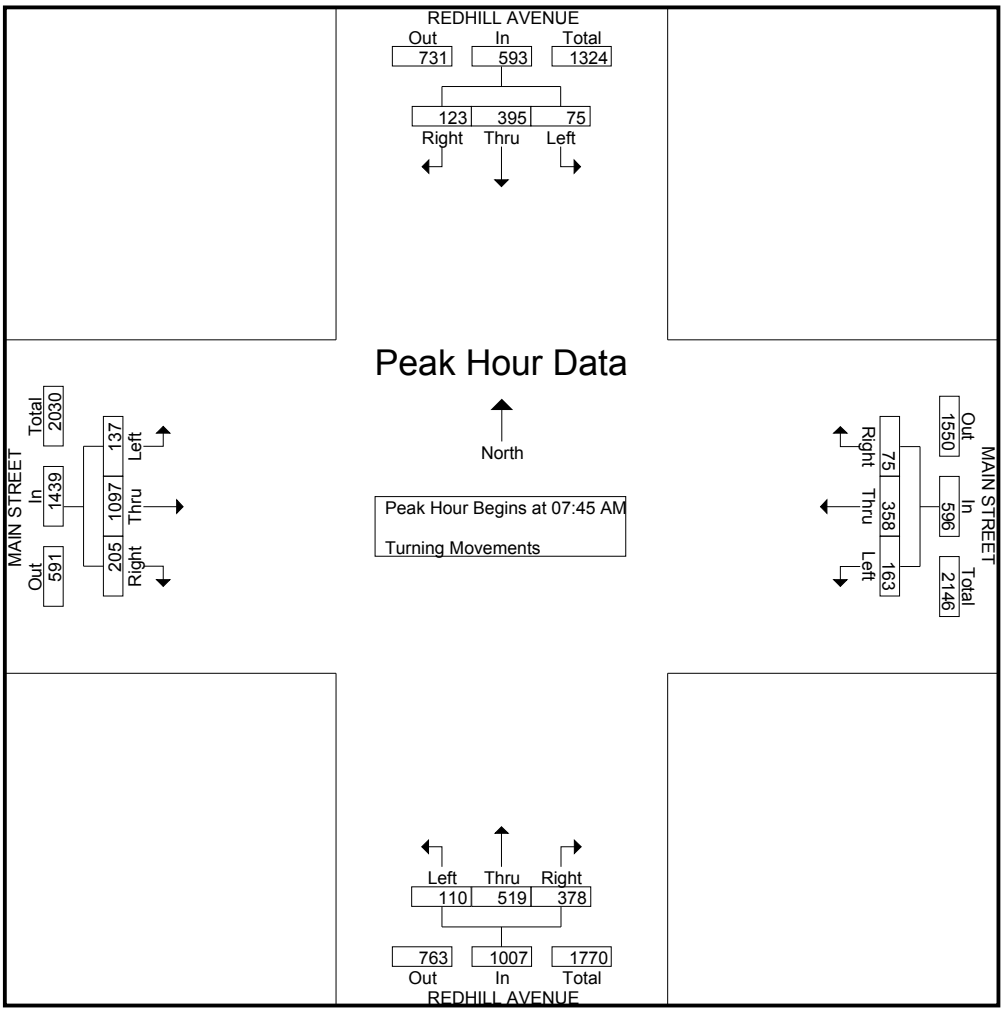
	REDHILL AVENUE Southbound			MAIN STREET Westbound			REDHILL AVENUE Northbound			MAIN STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	13	36	12	13	54	28	44	65	15	24	149	11	464
07:15 AM	16	60	14	14	59	30	57	72	10	37	198	28	595
07:30 AM	28	81	24	20	67	31	77	112	18	33	238	27	756
07:45 AM	21	92	12	19	85	50	99	177	19	61	331	51	1017
Total	78	269	62	66	265	139	277	426	62	155	916	117	2832
08:00 AM	36	117	17	19	76	42	104	120	37	40	270	31	909
08:15 AM	31	92	24	18	99	38	103	120	30	64	278	28	925
08:30 AM	35	94	22	19	98	33	72	102	24	40	218	27	784
08:45 AM	34	80	12	20	105	41	75	82	42	40	231	57	819
Total	136	383	75	76	378	154	354	424	133	184	997	143	3437
*** BREAK ***													
04:00 PM	26	104	11	28	292	63	43	198	48	24	136	29	1002
04:15 PM	24	103	7	14	206	57	36	165	53	27	123	32	847
04:30 PM	45	119	16	9	343	67	54	183	57	23	116	39	1071
04:45 PM	42	130	19	14	298	67	50	180	57	36	145	31	1069
Total	137	456	53	65	1139	254	183	726	215	110	520	131	3989
05:00 PM	74	188	14	27	392	79	99	223	88	35	162	41	1422
05:15 PM	70	181	24	20	410	87	54	197	76	42	203	45	1409
05:30 PM	69	153	20	24	414	97	69	231	47	30	188	48	1390
05:45 PM	40	142	13	24	320	65	58	178	57	44	204	44	1189
Total	253	664	71	95	1536	328	280	829	268	151	757	178	5410
Grand Total	604	1772	261	302	3318	875	1094	2405	678	600	3190	569	15668
Apprch %	22.9	67.2	9.9	6.7	73.8	19.5	26.2	57.6	16.2	13.8	73.2	13.1	
Total %	3.9	11.3	1.7	1.9	21.2	5.6	7	15.3	4.3	3.8	20.4	3.6	

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

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MAIN STREET

File Name : h1405110
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	REDHILL AVENUE Southbound				MAIN STREET Westbound				REDHILL AVENUE Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	21	92	12	125	**19**	85	**50**	154	99	**177**	19	**295**	61	**331**	**51**	**443**	**1017**
08:00 AM	**36**	**117**	17	**170**	19	76	42	137	**104**	120	**37**	261	40	270	31	341	909
08:15 AM	31	92	**24**	147	18	**99**	38	**155**	103	120	30	253	**64**	278	28	370	925
08:30 AM	35	94	22	151	19	98	33	150	72	102	24	198	40	218	27	285	784
Total Volume	123	395	75	593	75	358	163	596	378	519	110	1007	205	1097	137	1439	3635
% App. Total	20.7	66.6	12.6		12.6	60.1	27.3		37.5	51.5	10.9		14.2	76.2	9.5		
PHF	.854	.844	.781	.872	.987	.904	.815	.961	.909	.733	.743	.853	.801	.829	.672	.812	.894

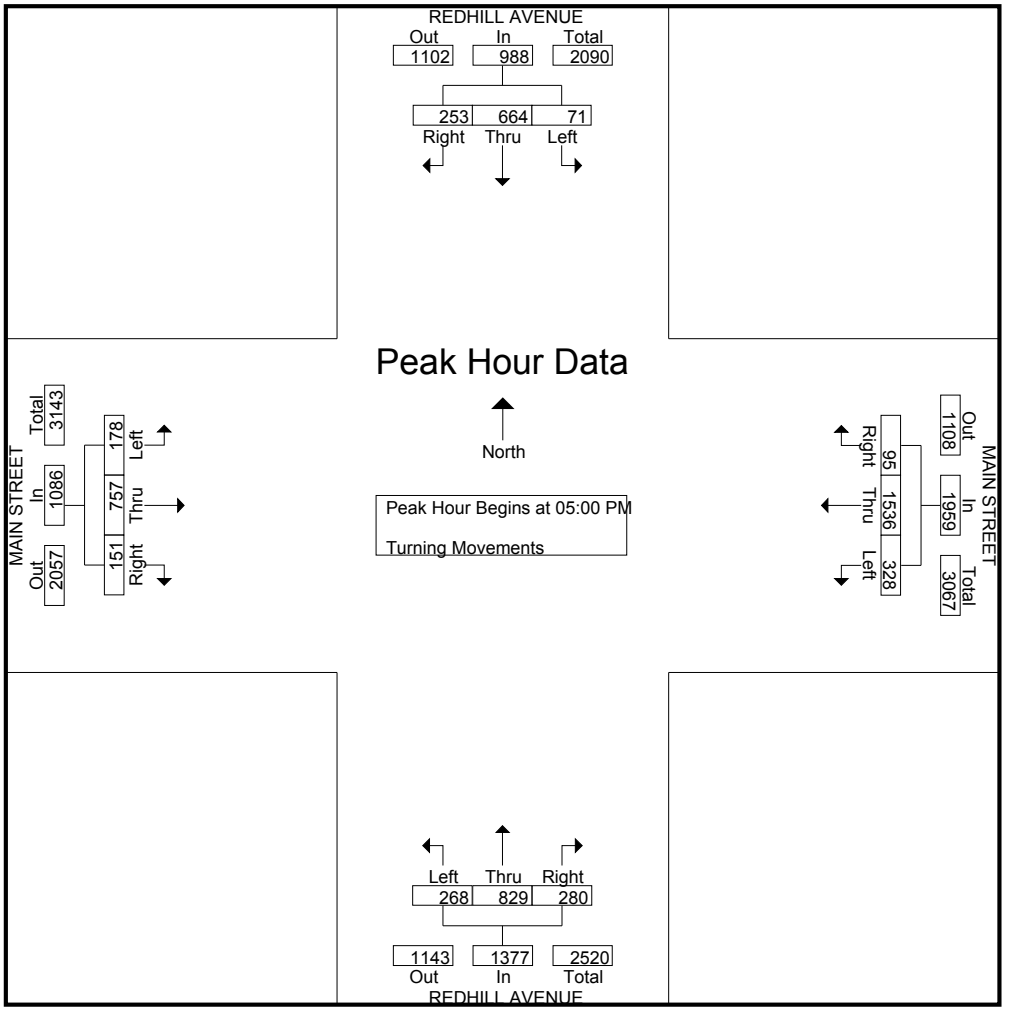


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: REDHILL AVENUE
E-W Direction: MAIN STREET

File Name : h1405110
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	REDHILL AVENUE Southbound				MAIN STREET Westbound				REDHILL AVENUE Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**74**	**188**	14	**276**	**27**	392	79	498	**99**	223	**88**	**410**	35	162	41	238	**1422**
05:15 PM	70	181	**24**	275	20	410	87	517	54	197	76	327	42	203	45	290	1409
05:30 PM	69	153	20	242	24	**414**	**97**	**535**	69	**231**	47	347	30	188	**48**	266	1390
05:45 PM	40	142	13	195	24	320	65	409	58	178	57	293	**44**	**204**	44	**292**	1189
Total Volume	253	664	71	988	95	1536	328	1959	280	829	268	1377	151	757	178	1086	5410
% App. Total	25.6	67.2	7.2		4.8	78.4	16.7		20.3	60.2	19.5		13.9	69.7	16.4		
PHF	.855	.883	.740	.895	.880	.928	.845	.915	.707	.897	.761	.840	.858	.928	.927	.930	.951



City: IRVINE
N-S Direction: MACARTHUR BOULEVARD
E-W Direction: MAIN STREET

File Name : h1405111
Site Code : 00005701
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

	MACARTHUR BOULEVARD Southbound			MAIN STREET Westbound			MACARTHUR BOULEVARD Northbound			MAIN STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	17	89	104	29	59	33	181	159	99	87	114	7	978
07:15 AM	17	95	108	22	56	34	238	199	122	83	181	14	1169
07:30 AM	21	127	84	20	99	47	275	164	140	103	186	12	1278
07:45 AM	15	145	112	29	159	57	341	229	122	144	253	25	1631
Total	70	456	408	100	373	171	1035	751	483	417	734	58	5056
08:00 AM	25	150	139	29	200	97	388	258	191	132	262	13	1884
08:15 AM	20	150	120	30	180	74	397	164	225	110	288	9	1767
08:30 AM	20	132	123	29	171	90	349	246	179	110	241	9	1699
08:45 AM	24	121	113	14	190	74	330	277	165	111	185	13	1617
Total	89	553	495	102	741	335	1464	945	760	463	976	44	6967
*** BREAK ***													
04:00 PM	11	141	35	85	145	142	78	200	122	122	143	14	1238
04:15 PM	14	157	56	89	157	123	108	243	140	112	141	19	1359
04:30 PM	15	150	45	78	151	132	128	249	108	115	174	12	1357
04:45 PM	14	157	60	78	158	124	156	294	122	131	153	17	1464
Total	54	605	196	330	611	521	470	986	492	480	611	62	5418
05:00 PM	15	169	48	100	165	105	168	351	151	148	223	6	1649
05:15 PM	13	200	76	122	216	155	128	405	137	152	267	11	1882
05:30 PM	14	202	59	89	178	165	66	319	144	140	253	16	1645
05:45 PM	10	193	106	81	189	144	73	329	171	120	236	11	1663
Total	52	764	289	392	748	569	435	1404	603	560	979	44	6839
Grand Total	265	2378	1388	924	2473	1596	3404	4086	2338	1920	3300	208	24280
Apprch %	6.6	59	34.4	18.5	49.5	32	34.6	41.6	23.8	35.4	60.8	3.8	
Total %	1.1	9.8	5.7	3.8	10.2	6.6	14	16.8	9.6	7.9	13.6	0.9	

Transportation Studies, Inc.
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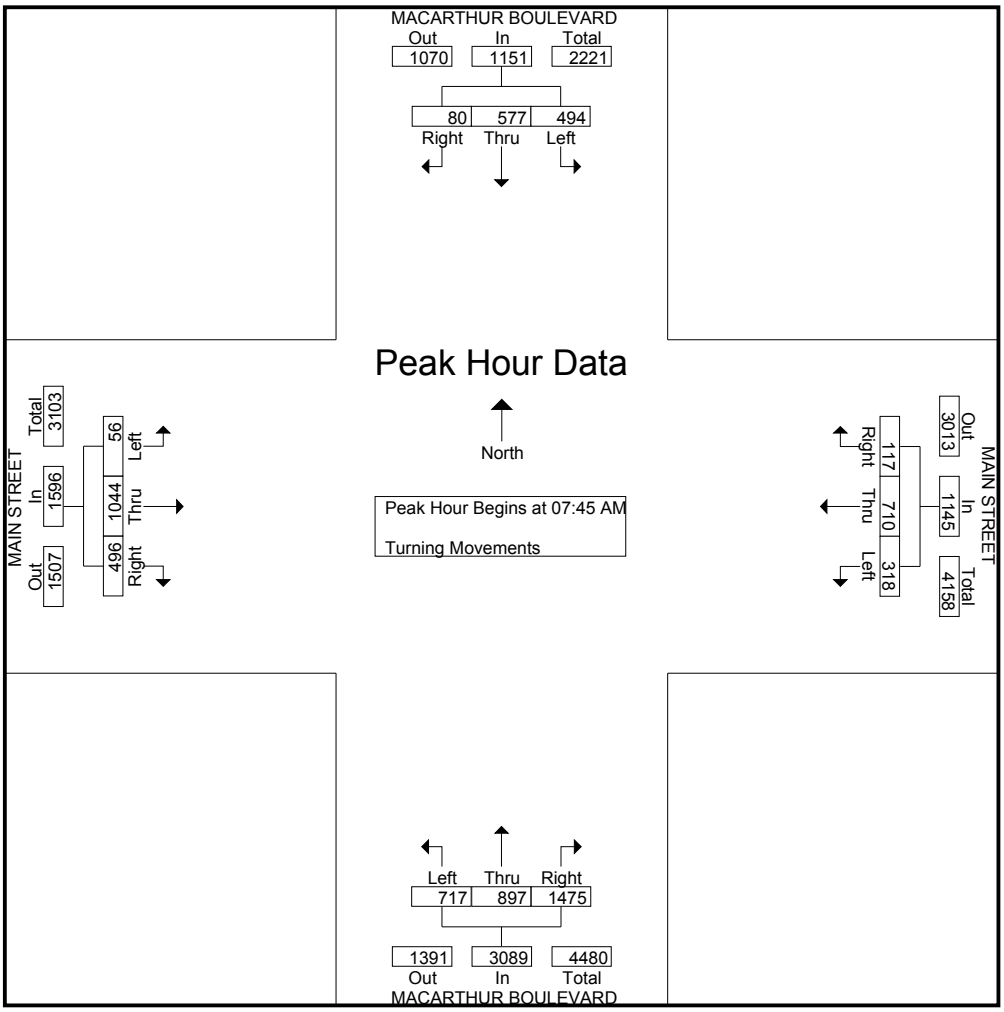
City: IRVINE
N-S Direction: MACARTHUR BOULEVARD
E-W Direction: MAIN STREET

File Name : h1405111
Site Code : 00005701
Start Date : 6/10/2014
Page No : 2

	MACARTHUR BOULEVARD Southbound				MAIN STREET Westbound				MACARTHUR BOULEVARD Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	15	145	112	272	29	159	57	245	341	229	122	692	**144**	253	**25**	**422**	1631
08:00 AM	**25**	**150**	**139**	**314**	29	**200**	**97**	**326**	388	**258**	191	**837**	132	262	13	407	**1884**
08:15 AM	20	150	120	290	**30**	180	74	284	**397**	164	**225**	786	110	**288**	9	407	1767
08:30 AM	20	132	123	275	29	171	90	290	349	246	179	774	110	241	9	360	1699
Total Volume	80	577	494	1151	117	710	318	1145	1475	897	717	3089	496	1044	56	1596	6981
% App. Total	7	50.1	42.9		10.2	62	27.8		47.8	29	23.2		31.1	65.4	3.5		
PHF	.800	.962	.888	.916	.975	.888	.820	.878	.929	.869	.797	.923	.861	.906	.560	.945	.926

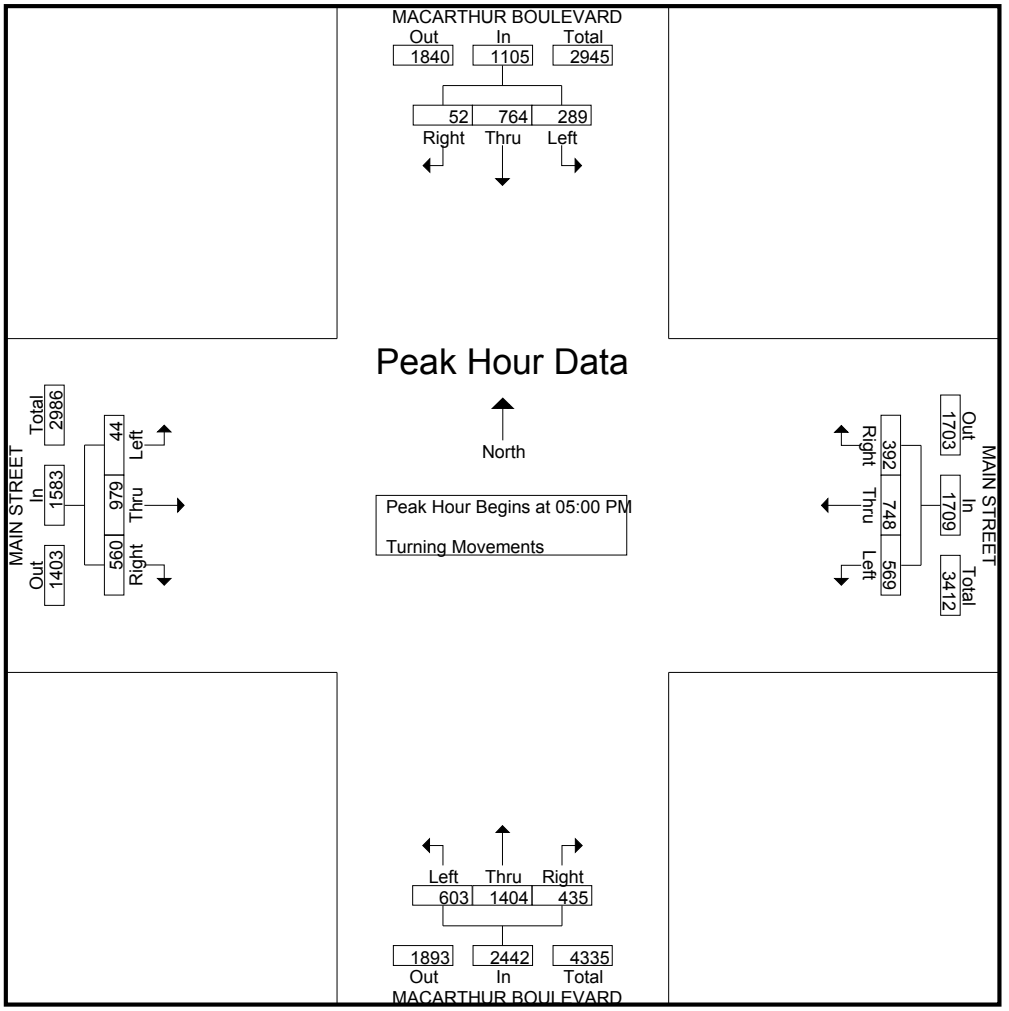


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: MACARTHUR BOULEVARD
E-W Direction: MAIN STREET

File Name : h1405111
Site Code : 00005701
Start Date : 6/10/2014
Page No : 3

	MACARTHUR BOULEVARD Southbound				MAIN STREET Westbound				MACARTHUR BOULEVARD Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**15**	169	48	232	100	165	105	370	**168**	351	151	**670**	148	223	6	377	1649
05:15 PM	13	200	76	289	**122**	**216**	155	**493**	128	**405**	137	670	**152**	**267**	11	**430**	**1882**
05:30 PM	14	**202**	59	275	89	178	**165**	432	66	319	144	529	140	253	**16**	409	1645
05:45 PM	10	193	**106**	**309**	81	189	144	414	73	329	**171**	573	120	236	11	367	1663
Total Volume	52	764	289	1105	392	748	569	1709	435	1404	603	2442	560	979	44	1583	6839
% App. Total	4.7	69.1	26.2		22.9	43.8	33.3		17.8	57.5	24.7		35.4	61.8	2.8		
PHF	.867	.946	.682	.894	.803	.866	.862	.867	.647	.867	.882	.911	.921	.917	.688	.920	.908



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

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: MAIN STREET

File Name : H1405113
Site Code : 00001944
Start Date : 6/12/2014
Page No : 1

Groups Printed- Turning Movements

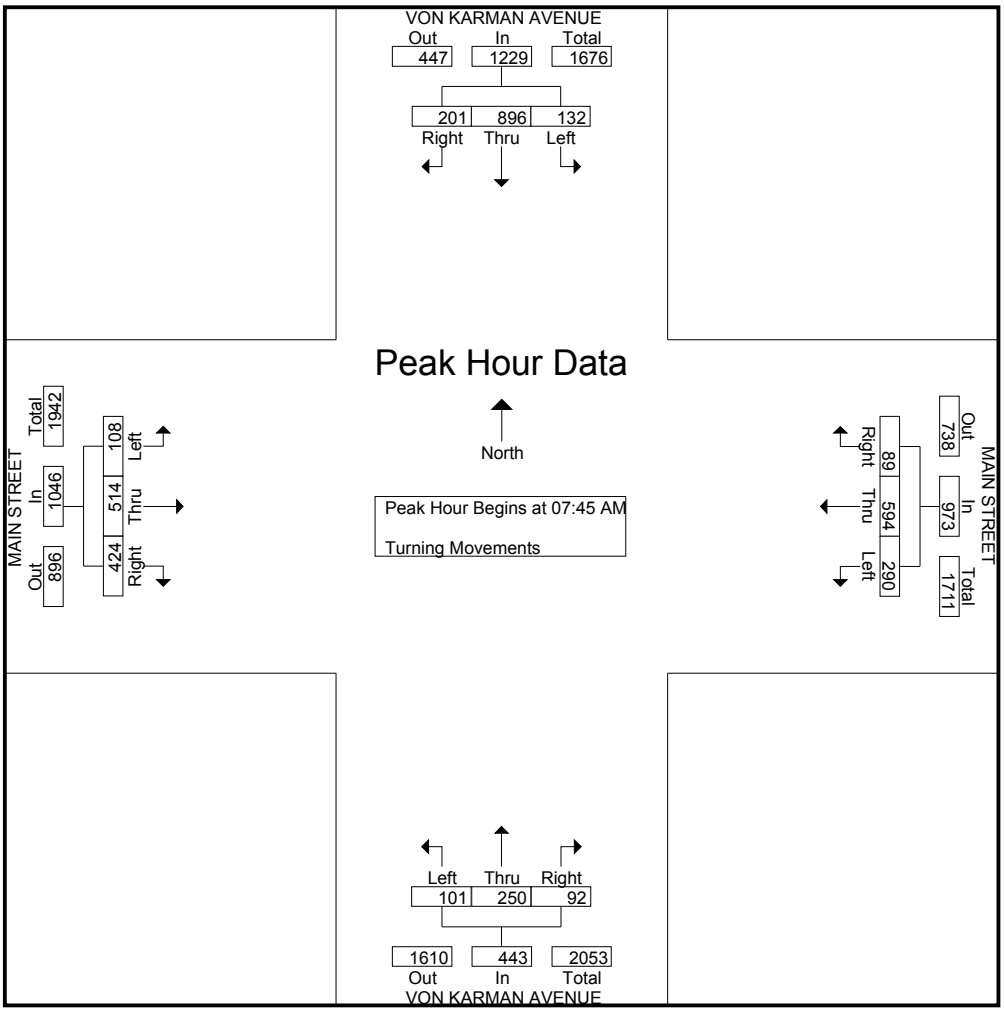
	VON KARMAN AVENUE Southbound			MAIN STREET Westbound			VON KARMAN AVENUE Northbound			MAIN STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	44	101	15	21	90	24	4	22	12	91	121	36	581
07:15 AM	39	180	38	20	98	23	8	45	11	102	83	35	682
07:30 AM	47	167	18	18	97	30	11	34	15	104	110	33	684
07:45 AM	47	213	29	16	131	65	25	71	26	91	123	29	866
Total	177	661	100	75	416	142	48	172	64	388	437	133	2813
08:00 AM	64	261	34	27	135	65	19	59	26	122	142	35	989
08:15 AM	42	212	33	20	148	80	24	66	15	98	128	22	888
08:30 AM	48	210	36	26	180	80	24	54	34	113	121	22	948
08:45 AM	32	240	25	19	87	68	25	53	21	89	104	18	781
Total	186	923	128	92	550	293	92	232	96	422	495	97	3606
*** BREAK ***													
04:00 PM	44	66	35	15	90	26	31	157	98	38	129	53	782
04:15 PM	26	62	15	16	99	15	62	221	99	21	182	79	897
04:30 PM	39	75	41	19	148	35	64	185	83	40	213	92	1034
04:45 PM	24	75	27	17	97	38	69	211	75	30	161	79	903
Total	133	278	118	67	434	114	226	774	355	129	685	303	3616
05:00 PM	29	104	27	24	120	23	79	203	74	31	211	74	999
05:15 PM	16	139	41	22	145	30	127	229	87	34	246	61	1177
05:30 PM	23	101	31	19	173	33	73	163	52	25	235	68	996
05:45 PM	14	99	31	20	126	39	83	190	61	24	176	58	921
Total	82	443	130	85	564	125	362	785	274	114	868	261	4093
Grand Total	578	2305	476	319	1964	674	728	1963	789	1053	2485	794	14128
Apprch %	17.2	68.6	14.2	10.8	66.4	22.8	20.9	56.4	22.7	24.3	57.4	18.3	
Total %	4.1	16.3	3.4	2.3	13.9	4.8	5.2	13.9	5.6	7.5	17.6	5.6	

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

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: MAIN STREET

File Name : H1405113
Site Code : 00001944
Start Date : 6/12/2014
Page No : 2

	VON KARMAN AVENUE Southbound				MAIN STREET Westbound				VON KARMAN AVENUE Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	47	213	29	289	16	131	65	212	**25**	**71**	26	**122**	91	123	29	243	866
08:00 AM	**64**	**261**	34	**359**	**27**	135	65	227	19	59	26	104	**122**	**142**	**35**	**299**	**989**
08:15 AM	42	212	33	287	20	148	**80**	248	24	66	15	105	98	128	22	248	888
08:30 AM	48	210	**36**	294	26	**180**	80	**286**	24	54	**34**	112	113	121	22	256	948
Total Volume	201	896	132	1229	89	594	290	973	92	250	101	443	424	514	108	1046	3691
% App. Total	16.4	72.9	10.7		9.1	61	29.8		20.8	56.4	22.8		40.5	49.1	10.3		
PHF	.785	.858	.917	.856	.824	.825	.906	.851	.920	.880	.743	.908	.869	.905	.771	.875	.933

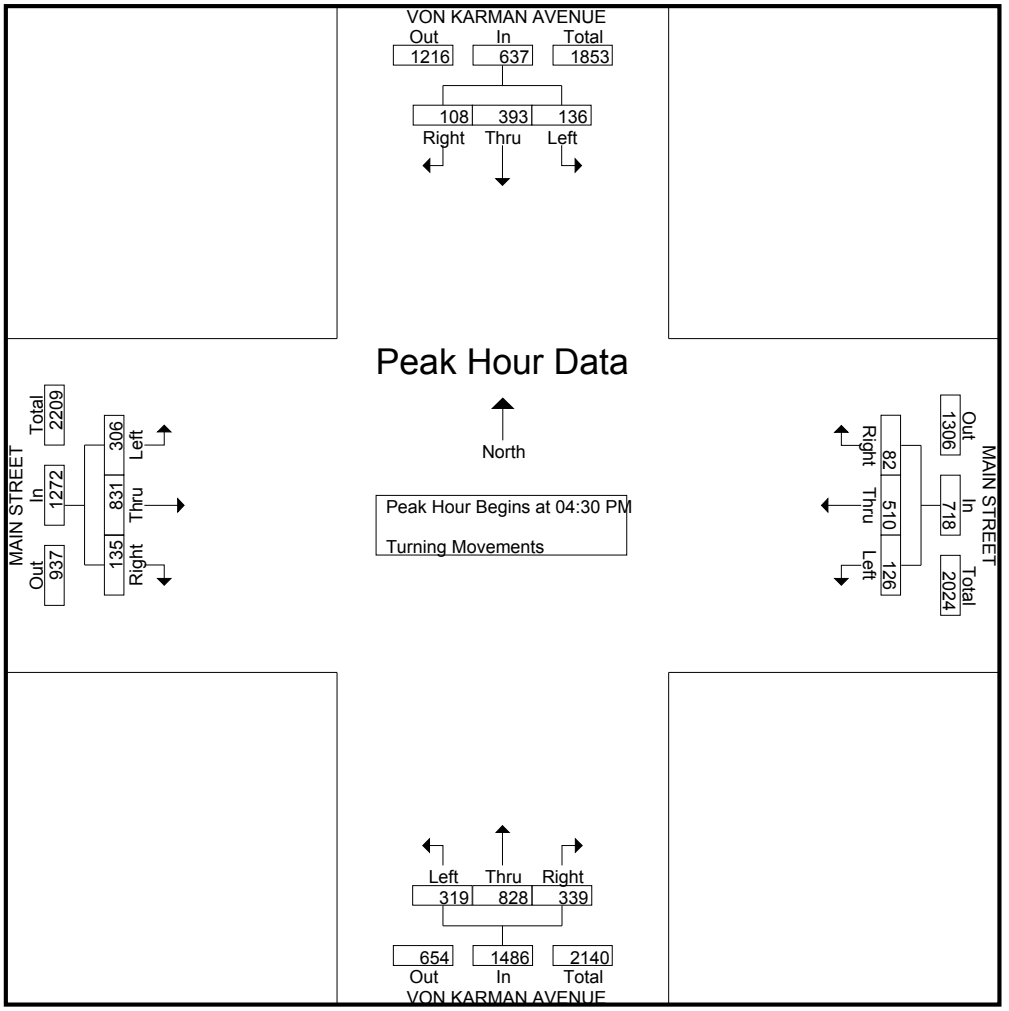


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: VON KARMAN AVENUE
E-W Direction: MAIN STREET

File Name : H1405113
Site Code : 00001944
Start Date : 6/12/2014
Page No : 3

	VON KARMAN AVENUE Southbound				MAIN STREET Westbound				VON KARMAN AVENUE Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**39**	75	**41**	155	19	**148**	35	**202**	64	185	83	332	**40**	213	**92**	**345**	1034
04:45 PM	24	75	27	126	17	97	**38**	152	69	211	75	355	30	161	79	270	903
05:00 PM	29	104	27	160	**24**	120	23	167	79	203	74	356	31	211	74	316	999
05:15 PM	16	**139**	41	**196**	22	145	30	197	**127**	**229**	**87**	**443**	34	**246**	61	341	**1177**
Total Volume	108	393	136	637	82	510	126	718	339	828	319	1486	135	831	306	1272	4113
% App. Total	17	61.7	21.4		11.4	71	17.5		22.8	55.7	21.5		10.6	65.3	24.1		
PHF	.692	.707	.829	.813	.854	.861	.829	.889	.667	.904	.917	.839	.844	.845	.832	.922	.874



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2640 Walnut Avenue, Suite H
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City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: MAIN STREET

File Name : h1405105
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

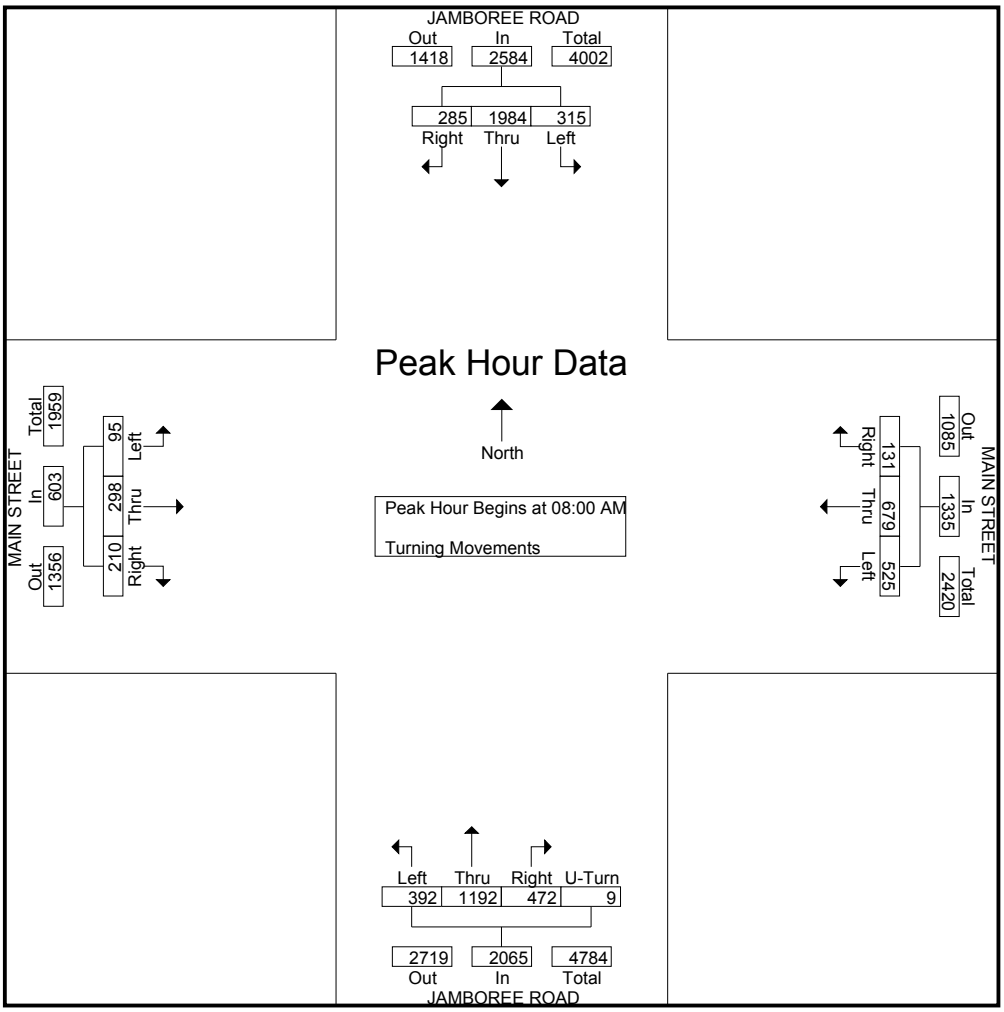
	JAMBOREE ROAD Southbound			MAIN STREET Westbound			JAMBOREE ROAD Northbound				MAIN STREET Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	Int. Total
07:00 AM	48	424	36	19	62	75	67	251	88	2	45	41	14	1172
07:15 AM	62	533	72	28	85	109	71	257	75	1	45	38	18	1394
07:30 AM	86	585	57	28	135	125	71	275	93	2	59	64	19	1599
07:45 AM	45	373	68	36	157	142	84	276	94	2	54	78	27	1436
Total	241	1915	233	111	439	451	293	1059	350	7	203	221	78	5601
08:00 AM	43	308	42	34	139	129	108	342	101	4	61	70	22	1403
08:15 AM	74	486	91	26	211	152	111	271	101	2	57	67	17	1666
08:30 AM	93	630	91	37	138	121	128	290	96	2	43	81	28	1778
08:45 AM	75	560	91	34	191	123	125	289	94	1	49	80	28	1740
Total	285	1984	315	131	679	525	472	1192	392	9	210	298	95	6587
*** BREAK ***														
04:00 PM	29	349	32	60	66	96	85	571	49	4	151	110	58	1660
04:15 PM	32	323	47	50	66	98	107	542	54	5	90	104	90	1608
04:30 PM	40	394	36	53	78	101	87	605	24	2	186	159	96	1861
04:45 PM	45	350	33	74	80	125	133	608	65	5	148	169	117	1952
Total	146	1416	148	237	290	420	412	2326	192	16	575	542	361	7081
05:00 PM	50	467	55	70	118	141	137	593	46	3	205	290	137	2312
05:15 PM	62	411	46	72	97	129	162	630	87	2	181	304	132	2315
05:30 PM	42	342	55	69	104	128	173	554	83	1	157	334	151	2193
05:45 PM	46	344	54	63	98	119	171	622	85	3	143	284	132	2164
Total	200	1564	210	274	417	517	643	2399	301	9	686	1212	552	8984
Grand Total	872	6879	906	753	1825	1913	1820	6976	1235	41	1674	2273	1086	28253
Apprch %	10.1	79.5	10.5	16.8	40.6	42.6	18.1	69.3	12.3	0.4	33.3	45.2	21.6	
Total %	3.1	24.3	3.2	2.7	6.5	6.8	6.4	24.7	4.4	0.1	5.9	8	3.8	

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

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: MAIN STREET

File Name : h1405105
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	JAMBOREE ROAD Southbound				MAIN STREET Westbound				JAMBOREE ROAD Northbound					MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 08:00 AM																		
08:00 AM	43	308	42	393	34	139	129	302	108	**342**	**101**	**4**	**555**	**61**	70	22	153	1403
08:15 AM	74	486	**91**	651	26	**211**	**152**	**389**	111	271	101	2	485	57	67	17	141	1666
08:30 AM	**93**	**630**	91	**814**	**37**	138	121	296	**128**	290	96	2	516	43	**81**	**28**	152	**1778**
08:45 AM	75	560	91	726	34	191	123	348	125	289	94	1	509	49	80	28	**157**	1740
Total Volume	285	1984	315	2584	131	679	525	1335	472	1192	392	9	2065	210	298	95	603	6587
% App. Total	11	76.8	12.2		9.8	50.9	39.3		22.9	57.7	19	0.4		34.8	49.4	15.8		
PHF	.766	.787	.865	.794	.885	.805	.863	.858	.922	.871	.970	.563	.930	.861	.920	.848	.960	.926

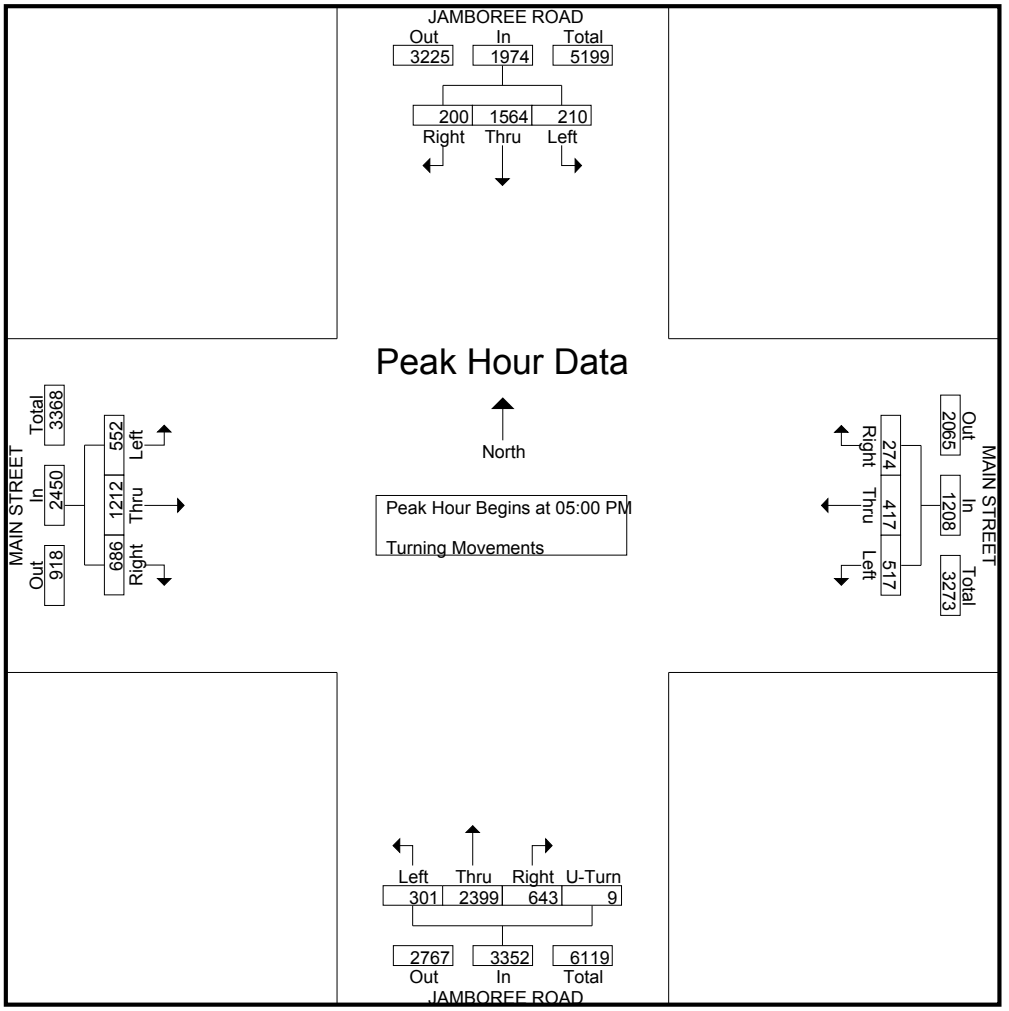


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: IRVINE
N-S Direction: JAMBOREE ROAD
E-W Direction: MAIN STREET

File Name : h1405105
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	JAMBOREE ROAD Southbound				MAIN STREET Westbound				JAMBOREE ROAD Northbound					MAIN STREET Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	50	**467**	**55**	**572**	70	**118**	**141**	**329**	137	593	46	**3**	779	**205**	290	137	632	2312
05:15 PM	**62**	411	46	519	**72**	97	129	298	162	**630**	**87**	2	**881**	181	304	132	617	**2315**
05:30 PM	42	342	55	439	69	104	128	301	**173**	554	83	1	811	157	**334**	**151**	**642**	2193
05:45 PM	46	344	54	444	63	98	119	280	171	622	85	3	881	143	284	132	559	2164
Total Volume	200	1564	210	1974	274	417	517	1208	643	2399	301	9	3352	686	1212	552	2450	8984
% App. Total	10.1	79.2	10.6		22.7	34.5	42.8		19.2	71.6	9	0.3		28	49.5	22.5		
PHF	.806	.837	.955	.863	.951	.883	.917	.918	.929	.952	.865	.750	.951	.837	.907	.914	.954	.970



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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: MAIN STREET

File Name : H1405106
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

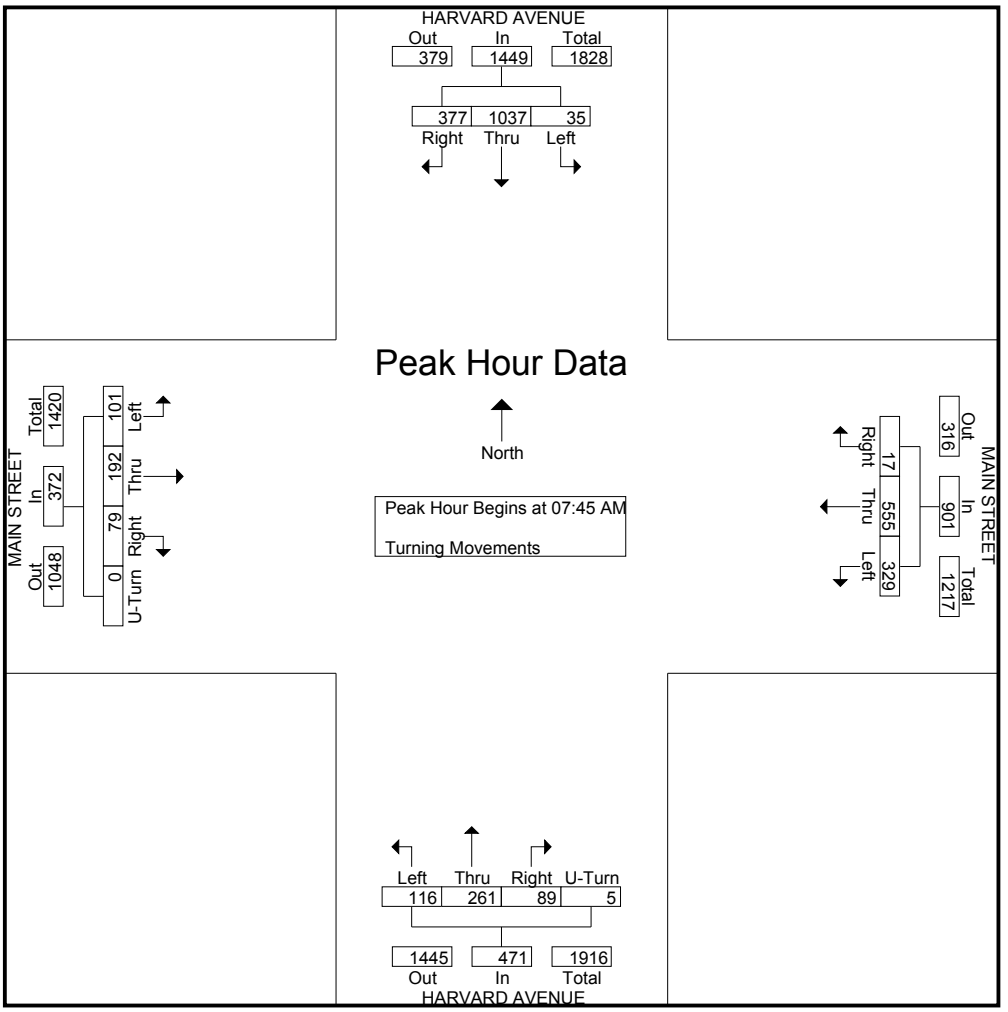
	HARVARD AVENUE Southbound			MAIN STREET Westbound			HARVARD AVENUE Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	36	133	3	4	54	30	4	40	13	1	20	24	19	1	382
07:15 AM	57	124	1	2	64	39	8	65	27	1	25	32	16	0	461
07:30 AM	75	160	10	2	100	54	21	68	20	1	23	50	18	0	602
07:45 AM	80	228	13	3	105	64	52	74	32	1	22	56	28	0	758
Total	248	645	27	11	323	187	85	247	92	4	90	162	81	1	2203
08:00 AM	106	267	7	7	148	101	22	60	34	1	12	44	28	0	837
08:15 AM	102	282	6	6	162	80	6	71	27	2	21	48	19	0	832
08:30 AM	89	260	9	1	140	84	9	56	23	1	24	44	26	0	766
08:45 AM	74	213	9	4	120	62	16	70	20	4	32	54	20	2	700
Total	371	1022	31	18	570	327	53	257	104	8	89	190	93	2	3135
*** BREAK ***															
04:00 PM	25	98	4	4	22	13	28	182	19	2	31	106	68	2	604
04:15 PM	22	110	4	2	33	23	34	139	22	1	33	152	76	0	651
04:30 PM	26	105	12	1	28	25	29	191	27	4	37	160	78	0	723
04:45 PM	18	109	9	3	40	34	47	203	24	1	29	169	80	0	766
Total	91	422	29	10	123	95	138	715	92	8	130	587	302	2	2744
05:00 PM	27	152	12	2	29	19	53	291	26	0	55	275	126	2	1069
05:15 PM	33	141	3	1	45	25	59	337	23	3	50	336	131	3	1190
05:30 PM	34	136	9	7	41	32	73	301	26	2	47	342	148	1	1199
05:45 PM	30	139	2	5	59	26	60	269	15	1	52	309	122	4	1093
Total	124	568	26	15	174	102	245	1198	90	6	204	1262	527	10	4551
Grand Total	834	2657	113	54	1190	711	521	2417	378	26	513	2201	1003	15	12633
Apprch %	23.1	73.7	3.1	2.8	60.9	36.4	15.6	72.3	11.3	0.8	13.7	59	26.9	0.4	
Total %	6.6	21	0.9	0.4	9.4	5.6	4.1	19.1	3	0.2	4.1	17.4	7.9	0.1	

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

City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: MAIN STREET

File Name : H1405106
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	HARVARD AVENUE Southbound				MAIN STREET Westbound				HARVARD AVENUE Northbound					MAIN STREET Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:45 AM																			
07:45 AM	80	228	**13**	321	3	105	64	172	**52**	**74**	32	1	**159**	22	**56**	**28**	0	**106**	758
08:00 AM	**106**	267	7	380	**7**	148	**101**	**256**	22	60	**34**	1	117	12	44	28	0	84	**837**
08:15 AM	102	**282**	6	**390**	6	**162**	80	248	6	71	27	**2**	106	21	48	19	0	88	832
08:30 AM	89	260	9	358	1	140	84	225	9	56	23	1	89	**24**	44	26	0	94	766
Total Volume	377	1037	35	1449	17	555	329	901	89	261	116	5	471	79	192	101	0	372	3193
% App. Total	26	71.6	2.4		1.9	61.6	36.5		18.9	55.4	24.6	1.1		21.2	51.6	27.2	0		
PHF	.889	.919	.673	.929	.607	.856	.814	.880	.428	.882	.853	.625	.741	.823	.857	.902	.000	.877	.954



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
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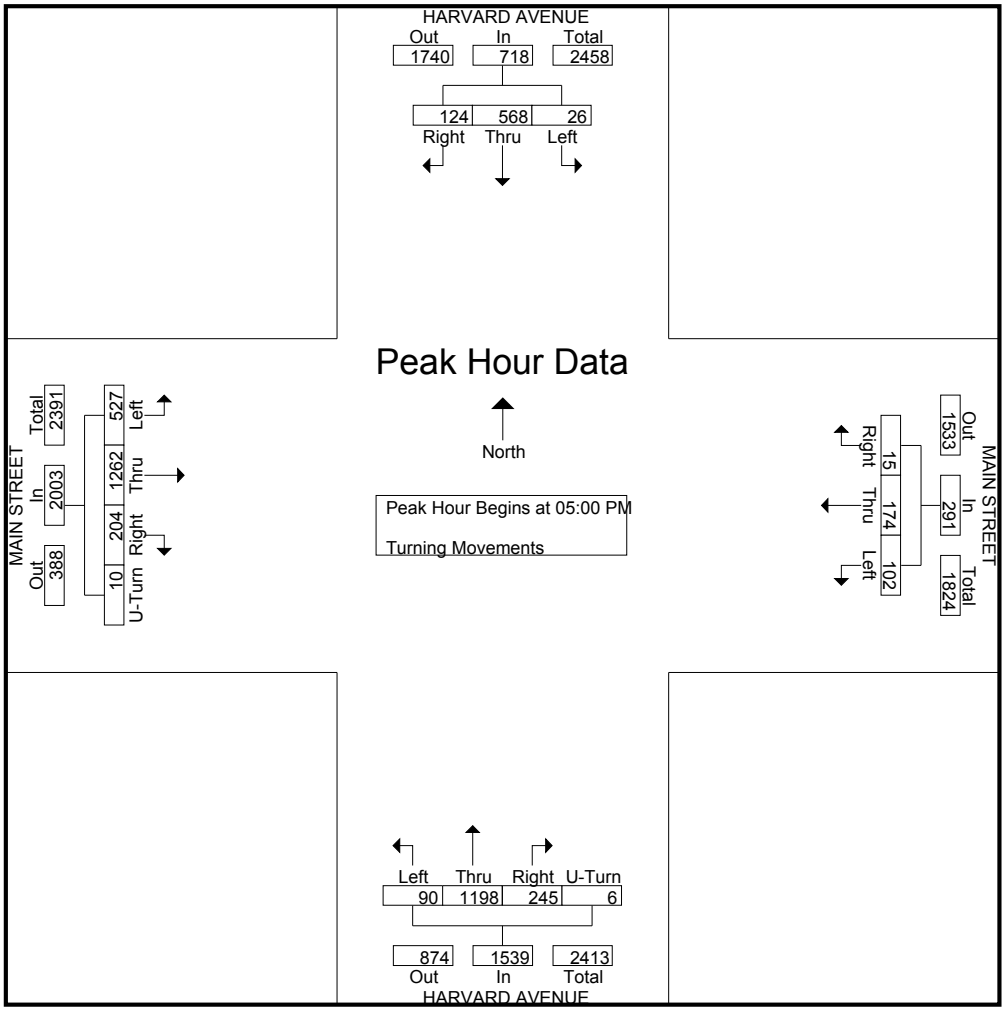
City: IRVINE
N-S Direction: HARVARD AVENUE
E-W Direction: MAIN STREET

File Name : H1405106
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	HARVARD AVENUE Southbound				MAIN STREET Westbound				HARVARD AVENUE Northbound					MAIN STREET Eastbound					
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	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	27	**152**	**12**	**191**	2	29	19	50	53	291	**26**	0	370	**55**	275	126	2	458	1069
05:15 PM	33	141	3	177	1	45	25	71	59	**337**	23	**3**	**422**	50	336	131	3	520	1190
05:30 PM	**34**	136	9	179	**7**	41	**32**	80	**73**	301	26	2	402	47	**342**	**148**	1	**538**	**1199**
05:45 PM	30	139	2	171	5	**59**	26	**90**	60	269	15	1	345	52	309	122	**4**	487	1093
Total Volume	124	568	26	718	15	174	102	291	245	1198	90	6	1539	204	1262	527	10	2003	4551
% App. Total	17.3	79.1	3.6		5.2	59.8	35.1		15.9	77.8	5.8	0.4		10.2	63	26.3	0.5		
PHF	.912	.934	.542	.940	.536	.737	.797	.808	.839	.889	.865	.500	.912	.927	.923	.890	.625	.931	.949



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

City: IRVINE
N-S Direction: CULVER DRIVE
E-W Direction: MAIN STREET

File Name : H1405107
Site Code : 00000000
Start Date : 6/10/2014
Page No : 1

Groups Printed- Turning Movements

	CULVER DRIVE Southbound				MAIN STREET Westbound			CULVER DRIVE Northbound			MAIN STREET Eastbound			
Start Time	Right	Thru	Left	U-Turns	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	22	340	9	0	17	32	77	19	146	14	45	8	10	739
07:15 AM	40	327	9	0	13	43	101	35	197	30	33	8	11	847
07:30 AM	68	420	20	0	25	58	133	39	226	31	50	20	18	1108
07:45 AM	76	519	24	0	24	79	149	50	245	29	46	29	31	1301
Total	206	1606	62	0	79	212	460	143	814	104	174	65	70	3995
08:00 AM	106	525	15	0	28	73	126	40	261	19	42	28	28	1291
08:15 AM	102	501	17	0	30	96	139	31	289	21	43	42	24	1335
08:30 AM	88	447	26	0	22	56	109	37	293	16	36	31	22	1183
08:45 AM	67	399	32	1	25	71	111	40	303	20	38	54	29	1190
Total	363	1872	90	1	105	296	485	148	1146	76	159	155	103	4999
*** BREAK ***														
04:00 PM	18	281	19	1	17	14	34	65	428	24	39	47	28	1015
04:15 PM	29	284	30	0	22	12	40	58	417	22	32	49	61	1056
04:30 PM	25	282	23	2	20	15	53	80	420	19	57	63	62	1121
04:45 PM	30	288	30	3	19	23	53	85	404	20	46	70	63	1134
Total	102	1135	102	6	78	64	180	288	1669	85	174	229	214	4326
05:00 PM	19	278	37	0	21	13	46	83	461	35	83	82	76	1234
05:15 PM	31	318	37	3	13	15	49	87	501	25	73	127	129	1408
05:30 PM	38	281	28	1	18	17	54	111	496	54	71	124	138	1431
05:45 PM	36	277	41	0	17	17	37	97	458	36	61	129	132	1338
Total	124	1154	143	4	69	62	186	378	1916	150	288	462	475	5411
Grand Total	795	5767	397	11	331	634	1311	957	5545	415	795	911	862	18731
Apprch %	11.4	82.7	5.7	0.2	14.5	27.9	57.6	13.8	80.2	6	31	35.5	33.6	
Total %	4.2	30.8	2.1	0.1	1.8	3.4	7	5.1	29.6	2.2	4.2	4.9	4.6	

Transportation Studies, Inc.
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City: IRVINE
N-S Direction: CULVER DRIVE
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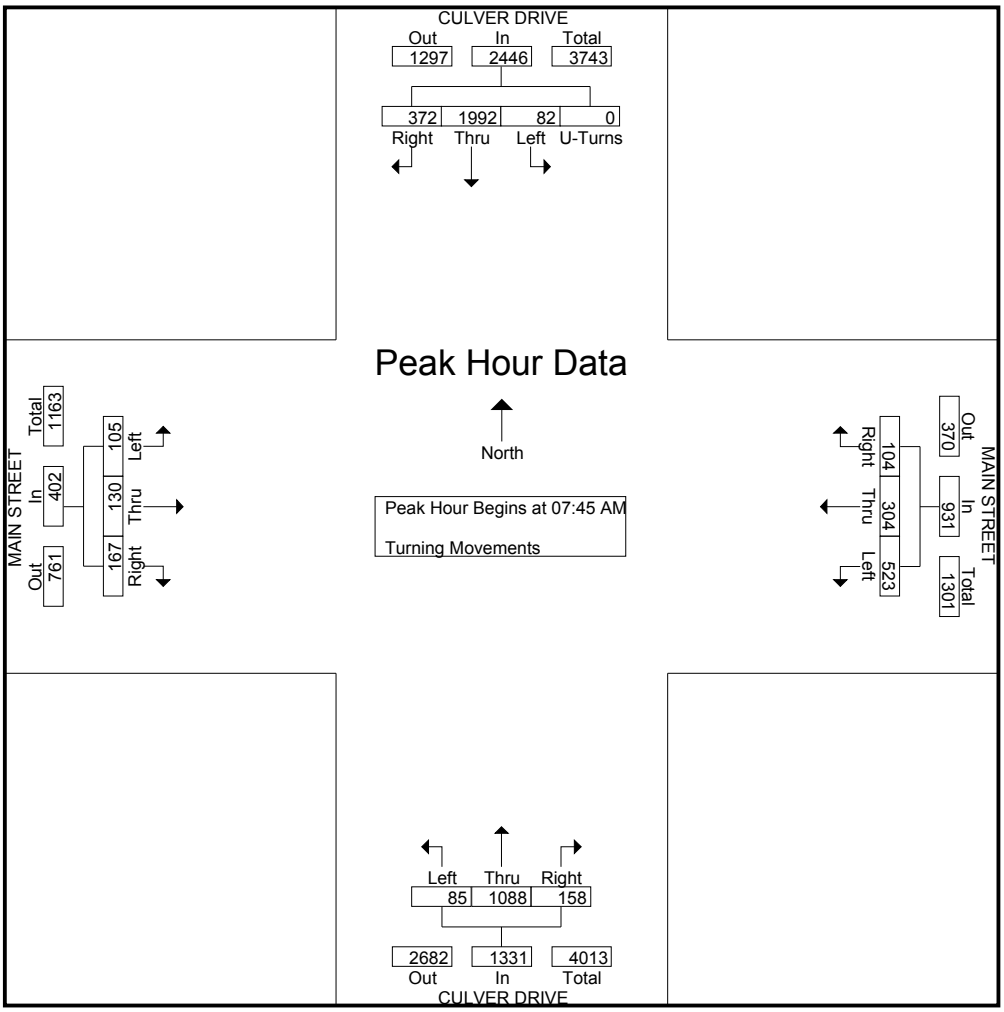
File Name : H1405107
Site Code : 00000000
Start Date : 6/10/2014
Page No : 2

	CULVER DRIVE Southbound					MAIN STREET Westbound				CULVER DRIVE Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:45 AM																		
07:45 AM	76	519	24	0	619	24	79	**149**	252	**50**	245	**29**	324	**46**	29	**31**	106	1301
08:00 AM	**106**	**525**	15	0	**646**	28	73	126	227	40	261	19	320	42	28	28	98	1291
08:15 AM	102	501	17	0	620	**30**	**96**	139	**265**	31	289	21	341	43	**42**	24	**109**	**1335**
08:30 AM	88	447	**26**	0	561	22	56	109	187	37	**293**	16	**346**	36	31	22	89	1183
Total Volume	372	1992	82	0	2446	104	304	523	931	158	1088	85	1331	167	130	105	402	5110
% App. Total	15.2	81.4	3.4	0		11.2	32.7	56.2		11.9	81.7	6.4		41.5	32.3	26.1		
PHF	.877	.949	.788	.000	.947	.867	.792	.878	.878	.790	.928	.733	.962	.908	.774	.847	.922	.957



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City: IRVINE
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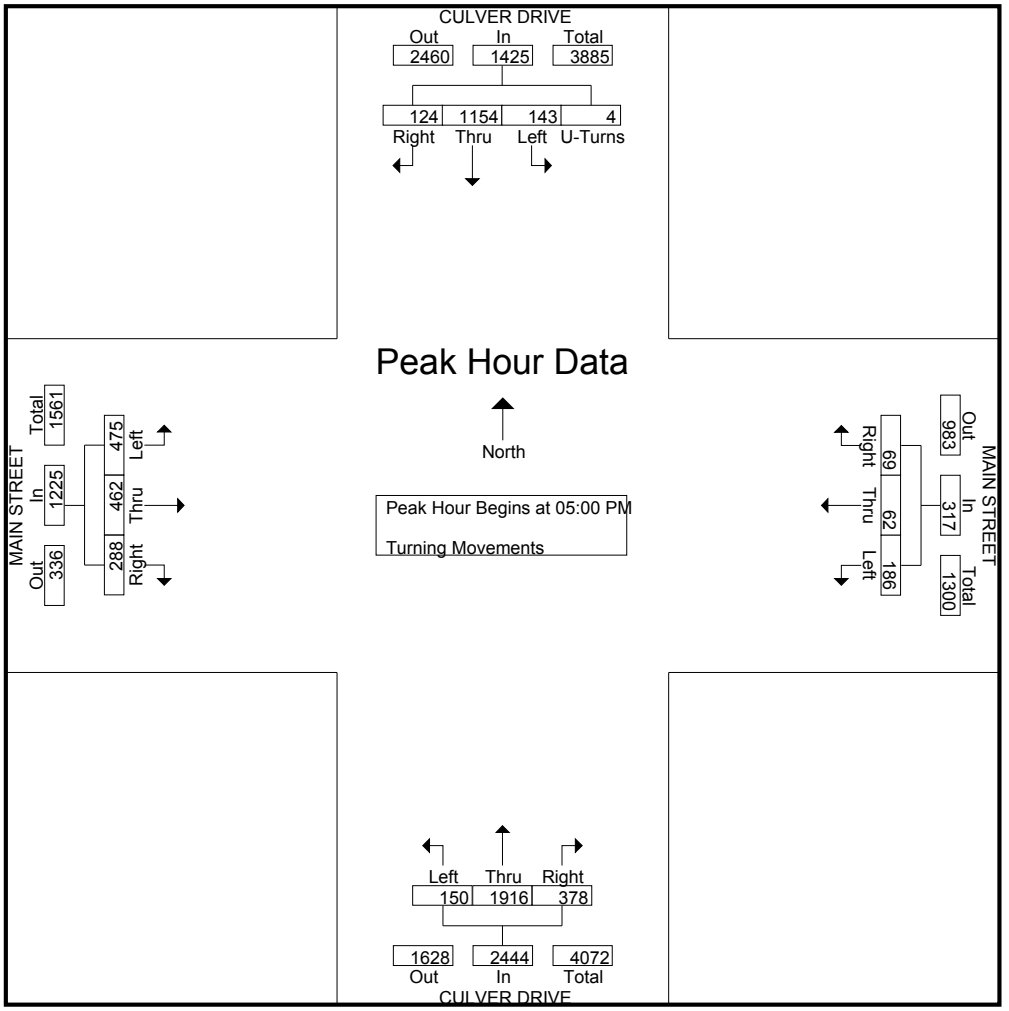
File Name : H1405107
Site Code : 00000000
Start Date : 6/10/2014
Page No : 3

	CULVER DRIVE Southbound					MAIN STREET Westbound				CULVER DRIVE Northbound				MAIN STREET Eastbound				
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	19	278	37	0	334	**21**	13	46	80	83	461	35	579	**83**	82	76	241	1234
05:15 PM	31	**318**	37	**3**	**389**	13	15	49	77	87	**501**	25	613	73	127	129	329	1408
05:30 PM	**38**	281	28	1	348	18	**17**	**54**	**89**	**111**	496	**54**	**661**	71	124	**138**	**333**	**1431**
05:45 PM	36	277	**41**	0	354	17	17	37	71	97	458	36	591	61	**129**	132	322	1338
Total Volume	124	1154	143	4	1425	69	62	186	317	378	1916	150	2444	288	462	475	1225	5411
% App. Total	8.7	81	10	0.3		21.8	19.6	58.7		15.5	78.4	6.1		23.5	37.7	38.8		
PHF	.816	.907	.872	.333	.916	.821	.912	.861	.890	.851	.956	.694	.924	.867	.895	.861	.920	.945